THE MEDICAL JOURNAL OF AUSTRALIA

VOL. I.—21ST YEAR. SYDNEY, SATURDAY, JANUARY 27, 1934. No. 4.

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An Address.[1]

By W. G. D. UPJOHN, M.D., M.S. (Melbourne), F.R.C.S. (England),

Retiring President of the Victorian Branch of the British Medical Association.

BEFORE commencing my valedictory address I should like to take this opportunity of expressing my most sincere appreciation of the work of individual members of the Council and to acknowledge the loyal assistance and conscientious work of the office staff.

To the conveners of subcommittees we are especially indebted; but there are two officers particularly whom we admire for their self-sacrificing service given with such graciousness and in such large measure. These officers are our Honorary Secretary, Dr. Major, and the Chairman of Committees, Dr. Newman Morris. My close association with them during my year of office has caused me to realize more clearly than ever before how very much the Council and the Association depend on these two officers for the administration of its affairs. They deserve our warmest thanks.

The custom of this Branch and Society is to require its retiring President to address the members on some subject of general or scientific interest at the close of his year of office.

It has been my privilege to be your President in a year, very fully occupied by hard work for the Council, wherein the Association has made notable progress on such lines as you may read in the pages of the annual report, and it has been my good fortune to preside during a year which has been undisturbed by strife or factional disharmony within the profession.

For the last twelve months I have been honoured by being your President, but I have been your Honorary Librarian for twelve years, either alone

[1] Delivered at the annual meeting of the Victorian Branch of the British Medical Association on December 6, 1933.

or associated with Dr. Douglas Stephens, and it happened that, in the course of my duties as the Librarian of the Medical Society of Victoria, I had occasion some time ago to take up an old volume of the *Australian Medical Journal*, printed in the year 1865 by Wilson and Mackinnon at 78, Collins Street East. In turning over its pages, I found many things in it to excite my curiosity and interest, and it occurred to me that some of the contents of this old volume might well serve as the basis of my address this evening.

Near its beginning is recorded the annual meeting of the Medical Society of Victoria on Wednesday, January 11, 1865. Reports of the Honorary Treasurer, Dr. Fetherston, and the Honorary Librarian, Dr. Neild, were read. There was a balance of £66 6s. 3d. to the credit of the Society. The President, Dr. Thomas, then proceeded to read a very long valedictory address.

In his opening remarks he announced that the address would be a lengthy one, and that he proposed to commence it by referring to "the novelties which had been introduced into the science and practice of the profession during recent times".

Unlike my distinguished predecessor, I do not propose to make my address a lengthy one. I hope, however, to interest you in some of the things that he spoke about so long ago, to compare and contrast them with some other things of recent times, to pause a little while to contemplate some of the matters which were the burning questions of those days, but which have now only a mild antiquarian interest, and occasionally to recognize in an older dress, some modern complaints and grievances.

Before commenting on Dr. Thomas's address, I should like to mention that Dr. Fetherston, who appears in the records as the Honorary Treasurer of that time, is the only practitioner mentioned in the 1865 volume of whom I have any personal recollection. He was the father of Dr. R. H. Fetherston, a senior member of our present Council.

When I was a small boy there were two Dr. Fetherstons in Prahran—young Dr. Fetherston, who has the faculty of remaining young and active, and old Dr. Fetherston, the one mentioned as being an early Treasurer of the Society. He was the subject of great admiration by my small companions and myself as he rode in the splendid militia uniform of those days to the reviews that used to be held on the Queen's birthdays and on other ceremonial occasions. He must have been a young man in 1865, as there is a short announcement on page 269 of the presentation to him and to Mr. Barrett, of Emerald Hill (the older name for South Melbourne) of testimonials for their services recently as resident surgeons to the Lying-in Hospital.

To revert to Dr. Thomas, he began his address by a review of the recent advances in medicine and surgery.

The introduction of chloroform in 1847 was still sufficiently recent to lead him to speak enthusiastically of the revolutionary changes which he had seen effected by its use in surgery and, to a less extent, in medicine.

Next he speaks of the triumph of modern surgery in the use of conservative operations, that is, excision of joints instead of amputation. He gives as an instance thereof the highly successful operation of excision of the knee joint, and quotes a series of thirty cases, of which six were fatal, five subsequently required amputation, and nineteen retained their limbs. Remembering that these operations were performed in the pre-Listerian days, these figures now seem more wonderful to us than they did to Dr. Thomas.

He has a great deal to say in favour of Dr. Simpson's recently introduced practice of stopping hæmorrhage by acupressure instead of by the septic ligature of those days. Later there is a report in the same volume of the journal of an acrimonious discussion on the same subject. The surgeons of those days evidently entered into their discussions very whole-heartedly. Read this description of Syme's conclusion of his denunciation of Simpson's pamphlet on acupressure:

> With firm hand, teeth compressed, pale lines around his orbits, and altogether a most determined and savage expression, he tore up the pamphlet with his fingers, and gave the fragments to his assistants to be consigned to the sawdust-box with other surgical remains.

Most of their opinions in those days seem to have been held and expressed in a more determined manner than has been the custom with our generation. For instance, on February 8, 1865, Dr. McCarthy read a paper on "Causes of Infant Mortality". The editor, Dr. Neild, apparently thought the essay was too long and decided to abridge it. To this Dr. McCarthy objected, and evidently there was a first-class fight between them. But the editor had the last word, and this is how he reported the paper read at the monthly meeting of the Society:

> The gist of Dr. McCarthy's remarks, however, was to the effect that children die in great numbers from being improperly fed, improperly clothed, improperly supplied with atmospheric air, and improperly denied medical aid when they require it.

The modern editor must feel sorely tempted sometimes to follow the excellent example of Dr. Neild, but manners have changed since then.

To return to Dr. Thomas's address. He goes on to describe the introduction of subcutaneous incision in surgery. This was a decided advance in pre-antiseptic days, and it was a method which, so I have been told, the late Sir Thomas Fitzgerald developed to a truly remarkable extent.

Speaking of ovariotomy, he says that it is a well established operation, unsuited, however, to hospital practice, because the "atmosphere of these institutions is unfavourable to its success and that the patients sink from shock and other secondary causes not yet very well understood". He advocates the use of the laryngoscopic mirror in investigation disorders of phonation and of breathing, and for

examining the conditions of the nasal cavities. One gathers from his remarks that at the time he was writing, its use was not widely known to members of his audience.

The ophthalmoscope had been invented by Helmholtz in 1857, only eight years before. Thomas has a great deal to say of the revolution that this invention brought about in ophthalmic surgery.

His attention then turns to "the wide field of general pathology". He selects from among newly recognized diseases diphtheria, thrombosis and embolism and the diseases caused by parasitic worms. He naturally has a great amount to say about diphtheria, and as one reads one can realize the contemporary horror caused by this disease. How dreadful must have been the experience of parents and practitioners in those days before an antitoxic serum was ever thought of, helplessly to see one child after another in a family succumb to this fatal affection. I have heard the older practitioners speak of these terrible occurrences, but it is hard to realize that the disease itself seemed to be to Thomas of recent origin.

He states that it was not till the year 1858, seven years before, that it appeared in Great Britain, and "since that period it has raged to an alarming extent".

Thrombosis and embolism assume a tremendous importance as a theoretical basis of much of the pathology of those days. Such diseases as apoplexy, pneumonia, and many of the chronic diseases of the viscera were ascribed to the effects of embolism.

I cannot spend time on what he has to say about various worms which had recently been discovered infecting human beings, nor can I say much about his rather unfavourable comments on the recently compiled British Pharmacopœia. Some of the drugs which are discussed are quite unknown to my generation. One therapeutic oddity is worthy of comment. Dr. Thomas frequently speaks about the "sedative effect of half to one drachm doses of calomel". I do not think he can be using the term sedative in its present day meaning.

The second half of the address is in many ways more interesting than the first.

Some of you may have heard Dr. George Howard's first address in the recently formed Section for the Study of the History of Medicine in Victoria, and you will remember that Dr. Howard emphasized what an important part Dr. Thomas played in our early medical history.

To quote from Dr. Thomas's address:

> I may state that I am, of all the present medical practitioners, the first who followed the profession in Victoria; and I have, consequently, had the best opportunities of observing its steady advancement.
>
> It is upwards of a quarter of a century since I commenced my medical career in Melbourne. At that time the population of the whole colony scarcely amounted to 2,000, and there were only three medical men, in addition to myself, in practice in Melbourne.

He was the first to administer ether and chloroform and, in addition, he was the first to perform many major operations, some of which probably have not come within the personal experience of some of the able surgeons of the present day.

> During the period spoken of, as much progress has been made, comparatively, in this country as took place in Britain during the many generations from the invasion of Julius Cæsar to our own time. Our roads, at the commencement of the period referred to, were, as the noble Roman must have found those of Britain, merely tracks through the country; and it was no uncommon thing for children to be drowned in the pools in the streets, and horses and vehicles submerged in the mudholes. We have, however, gradually advanced from this state, until not only have we macadamized roads penetrating all the principal parts of the country, but we have gone a step further in having railways intersecting it in various directions. At the time alluded to the face of the country was dotted here and there with slab huts, the residences of our squatters, but now we have it studded with finely-built towns and elegantly-constructed and durable mansions.

But his next paragraph refers to the horrible, insanitary state of Melbourne at that period of its development. His description shows it to have been worse than any small country town of the present day.

The population had increased in his time from 2,000 to 600,000, and the medical practitioners from six in the whole colony to 400, the proportion being about one medical man to 1,500 of the population.

At the present time the population of Victoria is about 1,820,000—998,000 metropolitan, 822,000 country—and there are about 1,385 medical practitioners, so the proportion has not changed very much. There is, however, a considerable variation in the proportions in the metropolitan and country areas. In the metropolis there is one medical practitioner to about 1,100 of the population, and in the country one to about 2,200.

He gives an extensive history of the development of charitable institutions in the early days and comments on the unsatisfactory method of appointing the medical staff to the Melbourne Hospital. This objectionable system at the Melbourne Hospital persisted to my time, and I can remember, when I was a student, the last public election of the medical staff of the Melbourne Hospital and can recall seeing some of the members of our honorary staff, dignified by the top hat and frock coat which was the correct attire for a professional man at that time, engaged in the undignified occupation of soliciting the votes and support of subscribers in various places of business in the city.

The first medical society or association in Melbourne commenced in 1846. It was called the Port Phillip Medical Association. There were six members, and they met first at Dr. Walker's house and subsequently at the Prince of Wales Hotel.

In 1853 it amalgamated with the one-year-old Medico-Chirurgical Society and formed the Victoria Medical Society. In 1865 the membership was 64. A list of the papers read and cases exhibited during the year excites one's admiration. The Melbourne Medical School had recently come into existence and lectures commenced on May 1, 1863.

There were two medical periodicals published in Melbourne, the *Australian Medical Journal*, started nine years previously by Dr. Maund, and the *Medical and Surgical Review*, started as a commercial speculation by Baillière, the publisher.

It is a commonplace to hear the complaint from those of us who are no longer young, that the climate of Melbourne has changed from what it was. Dr. Thomas made the same complaint in 1865. He laments that "the climate of Echuca is now what that of Melbourne formerly was".

His reminiscences of the diseases which prevailed in the early days of his practice show the existence of many diseases attributable to defective sanitation.

He has much to say about a fever which he calls colonial fever, "which left the system by a critical evacuation of the bowels". The treatment at this crisis was to give brandy liberally. "It was not unusual in these cases for the patient to drink a bottle of brandy in one night." He naïvely remarks that "if those thus affected got over the critical period they generally did well". "After convalescence they became very fat and the liver hypertrophied", probably, I should imagine, owing to a continuance of the use of the brandy cure. In the next paragraph he goes on to relate that liver complaints were extremely common, and he scarcely ever made a *post mortem* examination on an old colonist without finding the liver enlarged. He blamed the climate, though admitting that the large consumption of brandy did not keep the system in a healthy state.

Since 1860 he had not seen a case of colonial fever—typhoid fever had now taken its place.

Hydatids were very frequent. Many in the liver and abdomen were cured by introducing a small trocar and cannula and evacuating the fluid. The lung hydatids were coughed up and after a long illness the patient, if otherwise healthy, got well.

If I were to follow the example of Dr. Thomas by enumerating the discoveries and advances in our profession and by reviewing the altered conditions of life in Melbourne during the time that I have lived here, this address would attain to an unpermissible size. However, I might be permitted to mention those occurrences and changes during that period which seem to me most noteworthy.

In the year 1895, when I had been only a few years at school, there were at least two events which will remain memorable in the history of our profession. They relate to two men who were not medical men, but who made discoveries of incalculably tremendous influence in science, including medical science.

The two men were Pasteur and Röntgen. Pasteur died in the same year that marked the discovery by Röntgen of the fluorescence caused by what we now call X rays. Pasteur's successive discoveries at every turn were met with scepticism and hostility, but a new generation with a different outlook grew up, and the importance of Röntgen's discovery was quickly realized everywhere and rapid development of its practical application followed.

Pasteur, his great disciple Lister, and Röntgen! What revolutionaries have ever produced such gigantic changes as these men have in medicine and surgery? I cannot think of any period in medical history in which three such marvellous discoverers were living at the same time.

Since then others have developed their discoveries so that the increase in detailed scientific knowledge and the technical advances in our art have been truly amazing, but no further great revolutionary concepts in science comparable to theirs have since come into the world to alter the course of our history. Radium was discovered in 1898, three years after Röntgen's discovery. The study of radioactivity has led to profound changes in the theory of the constitution of matter and to the establishment of a distinct specialized type of therapy.

From so many notable discoveries affecting medical and surgical practice in the last twenty-five years it is a little difficult to make a selection of what should be considered most noteworthy. While I was still a student came the discovery of the organism of syphilis, the Wassermann test, and the use of Ehrlich's arsenical remedies, undoubtedly all discoveries of outstanding importance.

More recently the discovery and use of insulin have been of enormous value both to physicians and surgeons.

All the most noteworthy recent advances in surgery and in medicine, too numerous to specify, have been due, as in the case of insulin, to a similar interest in physiological research and to the application of its results in practice.

An address might well be given alone on the subject of typhoid fever in Melbourne. The bad sanitation of Melbourne and the consequent high typhoid morbidity, of which Dr. Thomas speaks, persisted to my time.

During my boyhood, metropolitan Melbourne and the nearer suburbs first started to become clean by beginning the present efficient sewerage system. Typhoid fever patients, who formed such a large proportion of hospital patients at one time, decreased in number year by year, till now they are uncommon in the city hospitals.

With the diminution in the numbers of typhoid patients, who had acted as a reservoir of the disease in the city, from which all parts of the State received a constant supply of infection, there came also a diminution in the numbers of country typhoid patients. Much yet needs to be done, however, in the sanitation of our country areas.

Few material changes have done more to alter the conditions of medical practice in my time than the abandonment of the horse carriage with the coming of the motor car. It has effected alterations in the geographical range of his practice, it has enabled him to dissociate his private residence from his place of practice, often by a very considerable distance, and it has even led to an alteration in his external appearance.

Formerly a tailed coat and a top hat were considered almost as necessities as articles of apparel

for a respectable city practitioner, but they were most inconvenient to wear in the early motor cars, and they rapidly dropped out of fashion as the use of motor cars became general.

In some ways the motor car symbolizes influences which are predominant in the civilization of modern society. It typifies the rapidity of change, the restless dissipation of energy, the mechanical standardized efficiency, and the attainment of material comfort, characteristic of our era.

To the men of Dr. Thomas's day, when individualism flourished, society must have seemed to be of undoubted sanity and stability. However, the state of society changed, imperceptibly at first, but with gradually increasing acceleration in the last quarter of a century, into its present condition of feverish confusion and instability.

The unsound mentality and general constitutional disorders of civilization in recent times have shown themselves more particularly by the convulsions and maniacal frenzy of a world war followed by a world depression.

It would be vanity for me to attempt to predict the next phase, but so far as it affects medical economics it appears to me certain that the old individualism of our profession is passing and that with this change is coming an altered economic relation of our profession as a group in society to the community as a whole.

While society in general has changed so greatly, it is remarkable to find that the constitution and administration of our medical society has changed so little in form in seventy years. The interests of the profession have been, year after year, conscientiously guarded by a council, the members of which have generously given their services and precious time in a truly public-spirited manner, and it redounds to the honour of the profession that it has produced a succession of men (and lately a woman, Dr. Constance Ellis) willing to act at considerable personal sacrifice in the interest of their fellow practitioners.

The burden has become greater than we are entitled to permit them to go on bearing. No body of men with such important interests as those of the British Medical Association gets such valuable service at such a low financial rate. We hear complaints at times about the rate of subscription. Ours is the lowest subscription of any State and, contrasting its proportion to the ordinary professional income with the proportion of subscription to average income paid by other organized bodies in the State, we could and should afford to pay more.

I consider that a vast amount of work which members of the Council are required to perform for the benefit of their fellow practitioners could be more efficiently and expeditiously performed by a salaried professional officer. Such a man would be able, by personal contact with medical men in various parts of the State, to gain a first-hand knowledge of our pressing needs and to help the advancement of our interests in a way which naturally is very difficult for the Council as it is at present constituted.

You have tonight given sanction for the creation of a representative body, which we hope will be a most useful instrument in medical politics, and which we hope will foster local interest in the affairs of our Association.

Let us return to the 1865 volume, for there are other matters which are worthy of notice.

In its pages we read controversial matter which might appear in any recent number of THE MEDICAL JOURNAL OF AUSTRALIA. There are complaints about the abuse of charitable institutions, grievances about the remuneration of medical witnesses, the antagonisms in the profession between those on the staff of hospitals and those who do not hold such positions, and, finally, the evergreen subject of the need for another hospital in Melbourne and where it should be built.

On the other hand, many of the causes which excited furious discussion then have now but a mild antiquarian interest.

For instance, there was very great ill-feeling at the time because the coroner did not make it the practice to give the *post mortem* examination in a coroner's case to the private practitioner who had attended the deceased. It was regarded as gross favouritism for the coroner to select for this task a man with special experience in this class of work. He was referred to as a "coroner's pet". Probably the contemporary readers of the journal knew whom the editorial referred to, but I am unable to discover his identity.

A charitable movement which commenced that year is of very great interest to us today. In the annual report for 1933 you will see that an appeal is being made to practitioners in Victoria to take an active interest in the Victorian Medical Benevolent Association.

This association is first mentioned in the journal of 1868, on page 136. The association was modelled on the Irish Benevolent Fund, and the initial appeal met with a generous response.

I am sure that many practitioners in this State are unaware of the fact that there has existed for close on seventy years an association whose objects and work must commend it most favourably to us all.

The economic background of society at the time is reflected in its Rule 9, which reads:

> That at the various gold fields and other centres of population where it is thought desirable the Committee shall appoint correspondents

to carry out the objects of the association. At the time Ballarat is spelled Ballaarat, and Bendigo is called Sandhurst, a name which survives now, as the name of the bishopric and as the name of a horse race.

There are occasional paragraphs and articles in the journal which enable us to place medical affairs in their historical perspective in relation to other occurrences of this period. For instance, there

appears a report, received from America, on the *post mortem* examination of President Lincoln, and there is the notice of a meeting of the profession called to organize a search for Dr. Leichhardt, the explorer, who had gone out exploring the unknown northern Australian wilderness, never to be heard of again.

No better example can be given of the altered economic and social outlook since Thomas's day than in one aspect of it which is reflected in a leading article in this journal of 1865.

On June 2, 1865, the medical board was fluttered by the application of Mrs. Ferguson, an M.D. of the University of Philadelphia, to be placed on the register.

This was the first occasion that a woman had made such a request in Victoria, and the whole affair was referred to the Attorney-General. She came to these shores as a ship's surgeon. The journal does not record what happened about her application.

Her action, however, aroused the editor of the journal. He wrote a long and vigorous article on the subject of medical women, and some of it is worthy of quotation. He begins:

> The Medical Board of Victoria has been startled from its routine by the application of a lady to have her name placed upon the Register. As may be supposed—indeed, it may be assumed as a matter of course—she comes from America, where exceptional social phenomena of all kinds are to be found; where women's rights are recognized, where bloomerism was invented, where women lecture, preach, edit newspapers, sit upon high stools in offices, and, in a general way insist upon doing what is done for them in less advanced communities.
>
> Until, however, we have reached that perfect social economy in which the sexes are to be confounded, or rather, perhaps, in which the relative inferiority of the male sex is to be demonstrated, it is not possible to look upon lady-physicians as other than curious examples of exceptional idiosyncrasy.

He ends one very prolonged paragraph thus:

> And a woman who has voluntarily devoted herself to a state in which the abandonment of the domestic qualification seems a necessity, is a being whom men do not love, and with whom women can hardly sympathize.

After a good deal of sentimentality about Florence Nightingale and some noble tributes to the qualities of women which fit them to be nurses, his sense of delicacy is revolted by the thought of a woman engaged in medical practice. Thus:

> But a woman who dissects, who makes *post mortem* examinations, who tests urine, who perhaps carries diseased specimens in her dress pocket, who can pass the male catheter and introduce bougies, who has perhaps performed lithotomy, who punctures buboes, probes sinuses, examines dejecta, sputa and purulent discharges, applies ligatures to hæmorrhoids, and may have just come from operating for *fistula in ano*, is not a person in whom you would look for the tenderer domestic qualities. It is too much forgotten that the duties of the surgeon are many of them extremely repulsive, and that not seldom even strong men recoil from them. The necessity for their performance makes us sometimes forget how repulsive they are. But it is abhorrent to the sense of delicacy that women, in whom delicacy is a constituent rather than a quality, should desire to perform them.
>
> There is little fear that in any British community medical women will exist as a class. They will occasionally be imported like other curiosities, and the public will wonder at them just as it wonders at dancing dogs, fat boys, and bearded ladies, and, in accordance with the demand for novelties, they will, perhaps, be as successful in a material sense, but they are not likely to be included in the list of British institutions.

Tonight we have heard an echo of the sentiments and beliefs expressed by members of our society seventy years ago.

We have appreciated and admired the work of these pioneers who laid so well the foundations on which later generations have raised a superstructure of which we are proud today, and we cannot help feeling stimulated by the example of their enthusiasm and high endeavour.

We recognize that they too were proud of their calling and were conscious of its dignity and worthiness. Unenlightened by the knowledge which has been revealed to mankind since their day, they practised their art with a courage and skill which compel our admiration.

Their example inspires us with a confidence that to our successors further enlightenment will come and that to them opportunities will be given to achieve triumphs greater than any that we have known, and though some of our firmly and conscientiously held beliefs may quietly amuse them, we trust that they will see us also in retrospect as men of intelligence, skill and courage in our attempts to overcome the difficulties of our environment, that they will understand that we sought and held to the truth as we in our time understood it, and that they will have no doubt that we were worthy of our lineage in conscientiously and steadfastly maintaining the reputation and honour of a great profession.

A REVIEW OF MASTOID SURGERY.

By W. J. DENEHY, M.D., M.S. (Melbourne),
Honorary Aural Surgeon, Homœopathic Hospital, Melbourne.

THE object of publishing this series of cases of mastoid disease and of dissecting the results of operations performed therein during the past four years is primarily to give an unbiased record of success and failure and to attempt to put forward reasons for success or otherwise. The second reason is to plead for more concerted action, preventive, pre-operative and post-operative, especially among hospital staffs, resident and honorary, whether engaged in aural work only or in pædiatrics, medicine or general surgery.

There seems to be an absence of settled line of thought and action, and of team work or organization between departments, resulting in failure: (i) to cope successfully with this disease so as to satisfy the patient's needs, and (ii) to impress the general body of our professional brethren with the need for educating the lay public to seek advice and carry out accurate, regular and defined treatment of *otitis media* in the endeavour to avoid the mastoid complications thereof.

The patients included in the series are of varied ages, ranging from two to sixty-four years. They came from private and public hospital practice, and are mainly drawn from in and around the metropolis (approximately 10% only being from country districts).

The operations performed were as follows:

(*a*) Simple mastoid or Schwartze operation in 73 cases (sometimes modified).

(*b*) Radical mastoid or Schwartze-Stacke operation in 32 cases (often modified, as shown in the text).

(*c*) The internal jugular vein was ligated in six cases. (Both internal jugular veins were ligated in one case, the one above and the other below the common facial vein. No untoward symptoms eventuated.)

(*d*) Cerebellar abscess was found and operated upon successfully in three cases, the operation performed being: (i) trephining of posterior fossa and connexion of this bony opening with previous Schwartze bony opening, or (ii) extending the mastoid bony opening dorsally past the lateral sinus canal. In no case did there seem the necessity for a radical mastoid operation (as Keeler suggests). The simple Schwartze operation sufficed.

(*e*) Temporo-sphenoidal abscess was discovered in two cases; both patients died.

(*f*) Extradural abscess was drained successfully in two cases.

Conservatism.

It seems rational to attempt conservative measures at the outset in cases of *otitis media* and doubtful mastoid disease, and latterly there is an increasing tendency to do so; and although I cannot quote statistics relating to this view, I definitely believe that the number of radical mastoid operations which have been undertaken in the past five years is considerably less than the number in any similar period during the past twenty years.

Paracentesis.

Regarding paracentesis of the *membrana tympani*, too great stress cannot be laid on the fact that too early incision (that is, in the absence of bulging of the *membrana tympani* and absence of distension of tympanum with fluid) is not only useless, but may be productive of definite harm. Paracentesis of the *membrana tympani* in acute *otitis media* without just cause is quite as dangerous as rib resection, and drainage of acute *empyema thoracis* complicating acute influenza. I am convinced that mastoid involvement is frequently precipitated by rash paracentesis without justifiable signs and symptoms for its performance.

I cannot, however, agree with delay if a bulging *membrana tympani*, acute pain, raised temperature and obvious toxic absorption are present. Nor can I agree with Douglas Guthrie[1] in delaying mastoid operation in the fulminant stage for fear of "aggravating or even inducing a condition of septicæmia by removing the nucleus of a 'fixation abscess' which is forming within the mastoid antrum and cells".

In contrast with my personal experience in acute *empyema thoracis* in acute influenza, I have never seen a case in which immediate operation for acute or even fulminant mastoiditis has aggravated that patient's condition. My endeavour is always to treat such cases of mastoiditis as immediate and urgent, in just the same way as one treats an acute or fulminant appendicitis.

Reverting to the question of paracentesis in acute *otitis media*, it must be realized how frequently cases of acute *otitis media* resolve (as do so many "colds" *et cetera*) without recourse even to paracentesis.

Regarding the technique of paracentesis, there seems no question as to the wisdom of making the incision through the bulging part, no matter in what quadrant it is located. If done properly, one paracentesis should be sufficient. If the condition does not abate and there is a recurrence of symptoms, pain, earache, headache, rise of temperature, pulsating *membrana tympani*, pulsating discharge or mastoid tenderness, this signifies that drainage is not complete and probably not practicable, owing to mastoid involvement. We must recognize "the fact that the ear is the organ of hearing and not a drainage tube for a diseased mastoid". We cannot expect drainage of a diseased mastoid contrary to gravity by way of the tympanum. Also, if such damming up of mastoid discharge is allowed within the tympanum, it must necessarily result in gross damage to the hearing mechanism.

Repeated paracenteses, in my opinion, are unsurgical, for, if the primary paracentesis had been properly performed, a second attempt should be unnecessary. If signs and symptoms indicative of probable mastoid involvement are present after a primary paracentesis, an immediate Schwartze operation and not a second paracentesis is indicated. Yet it is remarkable how many surgeons of wide experience still persist in temporizing, increasing the local risk, lengthening convalescence, and even endangering life by repeated paracenteses.

Case II is evidence of such bad surgery.

First, the patient's parents refused paracentesis. Three days later (in my absence on leave) the patient's condition became worse. Paracentesis (probably incomplete) was performed by the resident medical officer, no pus or other fluid being obtained. Eight days later, owing to increase in symptoms, a second paracentesis was performed (again no pus being obtained). Three days later, with increase of symptoms, and almost certainly mastoid involvement, a third paracentesis was undertaken and pus was obtained. The resident medical officer concerned apparently did not consult the honorary surgeon then on duty. On my return to duty five days later, a Schwartze operation was urgently needed. A perisinus abscess and frank pus in the mastoid antrum and air cells were found, the bone was markedly eroded, the aditus consequently enlarged, and the incus was lying free.

This case shows evidence of: (i) delay in incising the *membrana tympani* (due to refusal of consent

by the patient's relatives), (ii) faulty technique in the conduct of primary paracentesis, (iii) foolish and unnecessary paracenteses later.

Case LXXVI shows a similar treatment undertaken during my absence on leave, three paracenteses being performed in a month on a patient whose mastoiditis started in acute fashion and became subacute. It may be said that in this case there was some excuse for the action taken, owing to the subacute nature of the mastoiditis, but I am convinced that nothing was gained by the repeated paracenteses.

Operations.

In all acute cases the technique employed has been the classic Schwartze operation, extreme care being taken to remove all cells. A wash through from aditus into tympanum and so through the perforated *membrana tympani* to the meatal canal insures a tympanum empty of pus and a meatal canal clear of pus and *débris*. This clean beginning of after-treatment generally assures a dry meatal canal very early after operation and a rapid convalescence with least damage to the tympanum and the meatal canal.

As a conservative operation, especially in chronic mastoiditis in children, also in acute supervening on chronic mastoiditis in adults and children and in subacute mastoiditis, the rule adopted was to make a skin and periosteal incision as for the radical operation and then to continue the Schwartze operation of clearing out all pneumatized bone, without, of course, removing the "bony bridge" as in the radical operation.

The advantages claimed for this modified operation are: first, that it makes a subsequent radical operation easier of accomplishment and is more likely to give union of the mastoid wound by first intention at such an operation on account of the healthy nature of the large anterior wound flap; secondly, that healing of the original wound is accelerated and there is a better opportunity of keeping the anterior flap superficial, and of avoiding the dropping in, which results in an ugly, depressed, broad scar of low vitality—a scar which tends to break down without provocation, owing to its breadth and consequent bloodlessness. The primary closure of the mastoid wound in the Schwartze operation (the so-called blood clot method) was not included in the series, it being regarded as unsurgical and not devoid of risk. It seems to be somewhat comparable with the modern dental idea of giving the patient a denture to wear immediately after teeth extraction, a procedure which, in spite of dentists' protests, must still be regarded as disgusting, unclean and absolutely unsurgical.

In these two groups the successful end result necessarily depends on the thoroughness of the operation, and is considerably helped by an effective wash-through at the end of the operation. Accuracy and regularity of the meatal toilet and the wound dressing usually determine a shortened convalescence and result in a dry meatal canal with healed *membrana tympani*, a healthy, healed mastoid wound, and good hearing, especially in acute and subacute cases. Another important factor in the post-operative care is leaving the pinna and mastoid wound exposed to the air without dressings. The careful and firm packing of selvedged gauze should fill the bony deficiency and keep particularly the anterior wound flap well towards the surface; and a small morsel of sterile cotton wool should be lightly placed in the meatal orifice to mop up any discharge.

The persistence without dressings during the day and with only a light dressing as a covering and protection at night is a wonderful preventive of the dermatitic condition often associated with otorrhœa and mastoid wounds.

In the third group (32 cases) a radical operation was considered necessary on the following grounds.

1. Chronic persistent or recurrent otorrhœa in spite of local treatment. The duration of discharge in adults and adolescents was two years up to thirty-five years. In two children, aged three and four years, the discharge had been present since a few months after birth. In only three cases had the discharge been present for less than a year. These three patients all had giddiness associated with persistent discharge.

2. Recurring granulations or aural polypi in spite of removal, the discharge also persisting. Twelve cases were in this subgroup.

3. Cholesteatomatous material was present in nine cases, but except in three cases it could not be regarded as an indication for operation, as it was merely found during an operation performed for other reasons.

4. Evidence of labyrinthine involvement. Preoperative giddiness was present in seven cases.

5. Bony complications.

6. Intracranial complications and meningitis.

The radical operation of Schwartze-Stacke (at times modified) was performed. Care was taken to obtain a large flap to hasten epithelialization. Careful attention was given to closure of the Eustachian canal ostium. Any cells which were still present were exenterated. The facial ridge was reduced, and the walls of the conjoined cavities were pared and smoothed to obtain a single cavity suitable for ease of packing and avoidance of damming up of discharge.

The accuracy of performance of these details was certainly a large factor in restricting the term of convalescence. The uniform absence of exuberant granulation tissue and the scantiness of ear discharge in private patients where one does the packing of the cavity oneself, were in marked contrast to the tardy convalescence of many in public hospital practice, where burning down or curettage of exuberant granulations was unfortunately quite a frequent necessity.

Complications of and Reasons for Failure or Incomplete Success of Operations.

Apart from the presence of tuberculosis, local or general, of syphilis or other cause of gross debility, there appears no reason why patients in any of these operation groups should not become perfectly well, even though some hearing defect must remain in most of the chronic and some of the subacute cases.

The anatomical and pathological reasons for partial or complete failure include the following:

1. Cells left *in situ*, as in an incomplete Schwartze operation. Also under this heading must be included the now discarded operation of mastoidotomy or simple incision, which, although successful in a small percentage of cases, left a train of disaster behind it, necessitating further operative interference.

In Case LV the patient, a male, aged eleven years, had a simple mastoid incision done in Holland four years previously for acute mastoiditis. After a convalescence of average duration he remained perfectly well till an acute influenza again caused an acute mastoiditis. A Schwartze operation was performed, and in six weeks a healed wound and dry ear resulted. No further trouble has eventuated.

2. Spreading osteomyelitis or intracranial complications, which may determine a prolonged convalescence (or even death), but usually do not militate against complete success.

3. Similarly, lateral sinus involvement has the same bearing as the condition described under 2.

4. The presence of sclerosed bone, perhaps associated with a few walled-off cells, may require further exenteration of cells and removal of bone, or even the conversion of a Schwartze into a radical operation. Of course, this condition may be due to faulty technique in the original Schwartze operation.

5. Lowered vitality of the scar usually results from a dropping in of the anterior flap of the skin wound, with consequent broadening of the scar and its adhesion to the bone. This can usually be avoided by careful packing of the bony deficiency during the early weeks after operation.

6. Poor packing with consequent exuberant granulations is a minor difficulty in the simple Schwartze operation and can easily be dealt with, but it may force the performance of a radical operation if not treated within a reasonable time. In the radical operation group this complication is, apart from incomplete operation, perhaps, the greatest cause of failure to obtain a dry ear. Of course, obtaining a dry ear is no guarantee that discharge will not recur, but, generally speaking, this is so. However, as demonstrated by the small group of cases referred to later, hygienic conditions do have an intimate bearing on the possibility of recurrence. Usually this factor (that is, poor packing) has the greatest bearing in producing the contrast between the results obtained in private and public hospital practice.

7. In the first and second groups persistent patency of the *aditus ad antrum* occasionally determines a very prolonged convalescence, a recurrence of infection from the tympanum with pus formation under the scar, or even may force the performance of a radical operation to insure the blocking of the tympanic end of the Eustachian canal and so prevent further infection from the nasopharynx by that route. Cases XXXVI and XLVII illustrate this complication.

Case XXXVI, a male, aged four years, came under observation after the parents had refused paracentesis in their home town. A double Schwartze operation was necessary. Frank pus was found in the mastoid antrum and cells, and also a tendency to erosion of bone, which caused a wide patency of the *aditus ad antrum* on both sides. This definitely prolonged his convalescence.

It certainly renders a patient more liable to reinfection by way of the Eustachian canal, such as actually occurred in Case XLVII.

A female patient, aged eight years, had an acute mastoiditis treated by Schwartze operation. Widely patent aditus was observed at operation. Convalescence (that is, closure of the mastoid wound) was delayed. Reinfection under the scar, presumably by way of the Eustachian canal, occurred six months after operation and again three years later. The patient's relatives became restive and obtained another opinion, which confirmed the view taken above, namely, that further reinfection beneath the scar is liable to occur unless the Eustachian canal is walled off, as is done in the radical operation.

8. Closure of *aditus ad antrum*. Case XCV demonstrates this peculiar complication and its result.

The patient was a woman, fifty-two years of age. During the course of a double influenzal pneumonia in September, 1933, she complained of very severe tenderness over and dorsal to the mastoid process. There was no evidence of middle ear inflammation nor abnormality of the *membrana tympani*. Under nitrous oxide and oxygen anæsthesia a Schwartze operation was performed. No aditus or communication with the tympanum could be found, the mastoid antrum and air cells were distended, no cell contents or lining could be seen, and the cellular character of the bone extended almost to the mid-line dorsally past the lateral sinus plate. After operation the temperature became subnormal immediately and remained so. Some tenderness dorsal to the wound persisted, as also nausea and giddiness. These have almost disappeared (November, 1933). During her convalescence close inquiry elicited the fact that similar pain and tenderness of less severity had occurred about a year previously, but no ear discharge had ever been present.

In such a case one must presume the occurrence of a primary mastoid infection, or possibly *otitis media* causing early closure of the Eustachian canal. The inflammatory exudate must necessarily be under pressure, and it must surely, in such circumstances, be rare for the mastoid antrum to escape infection. In a similar way an *otitis media* may permanently close the aditus, and a period of prolonged latency may then ensue. As Gilbert Chubb[2] says:

We have only to postulate the early and complete closure of the aditus to envisage the possibility of a chronic, but entirely latent mastoid infection, co-existing side by side with a normal middle ear, normal drum and normal hearing.

The alternative, the occurrence of a blood-borne infection, does not offer as feasible an explanation as the closure of the aditus.

9. Reinfection by the Eustachian canal is very liable to occur and to prevent cessation of discharge after a radical operation in which the closure of the tympanic ostium of the Eustachian canal has been incomplete. It is imperative, therefore, to attempt to make such closure absolute by effective rasping, or by whatever means the surgeon favours.

10. Narrowing of the meatal canal occurs developmentally in many individuals. It may be acquired as the result of thickening, due to inflammatory states of the meatal canal walls (most commonly furuncles), or may occur post-operatively due to inflammatory or œdematous thickening or to partial collapse of the meatal walls ventro-dorsally. The latter tends to occur most frequently in the first operation group, and its prevention is mainly dependent on effective packing of the dorsal wound. If such a state has resulted, it determines usually the need for the radical operation, during the course of which the large flap made from the dorsal meatal wall causes enlargement of the meatal canal by including its calibre in the conjoined cavity of canal, tympanum and mastoid antrum.

Case XII, a female patient, aged thirty-one years, had a Schwartze operation performed in December, 1928, the condition then present being a subacute rather than an acute mastoiditis. Pus was evacuated, convalescence was slow, but pain and the ear discharge continued. Radical operation was performed in August, 1932, when it was found extremely difficult to obtain a sufficiently wide canal for drainage and packing purposes. However, the ear discharge ceased, the cavity healed and the ear has remained dry.

Case XIV, a male patient, aged seventeen years, who had an increasingly profuse otorrhœa for three years, was subjected elsewhere to a radical operation in August, 1930. Four months later he came under observation. The meatal canal was very narrowed, there was profuse discharge, and it was deemed necessary to reopen the mastoid wound and by attempting a large flap to give effective drainage. It was found that the "bridge" had not been completely removed. Removal was completed. The facial ridge was further lowered, the conjoined cavity was curetted and smoothed, and the Eustachian canal, which was patent, was thoroughly rasped to insure its closure. This patient was exceedingly unsatisfactory after the first eight weeks, reporting only every two or three months. One period of eight months elapsed without his attending the clinic, and on examination it was then found that he had a large piece of foul cotton wool in the ear. He stated that he dressed his ear himself. However, he was last seen in May, 1933, with a well epithelialized and almost dry cavity—an astounding and undeserved good result.

11. Cholesteatomatous material was seen at operation in many cases. In Cases LXV and LXXX polypoid material associated with cholesteatoma was presenting in the meatal canal. This curious condition is usually associated with softening or excavation of bone, and so increases the difficulties and risks of operation.

Kerrison once stated:

> The treatment of cases in which the presence of cholesteatoma can be determined may be summed up in three words—the radical operation.
>
> Such a growth, from its power of causing osseous disintegration or absorption in any or all directions, constitutes a condition in which the patient is constantly exposed to the danger of intracranial infection. The operation in these cases should provide for an enlarged meatal opening through which all parts of the tympano-mastoid cavity can be reached and subsequent cholesteatomatous collections prevented.

So in eleven cases in this series gross cholesteatomatous material was seen at operation and was taken as an added indication for the performance of the radical operation, which had to be extended to include complete exenteration of all affected bone.

In Case XXIII the patient, who gave a history of chronic otorrhœa for thirty years, and of two rigors during the week before first attendance, was found to have a deep cavity (representing the enlarged mastoid antrum) full of foul pus and cholesteatoma. This was bounded by sclerosed bone, yet a thrombosed lateral sinus and a cerebellar abscess were present.

In Case XCVI the patient gave a history of only twelve days' earache, yet at operation gross cholesteatoma that had eroded the mastoid roof was found, and the dura of the middle fossa was covered with granulation tissue. Kerrison's ideas were followed:

> If no previous operation has been performed, the mastoid should be operated upon, a radical operation being performed if the suspected abscess be secondary to a chronic middle ear suppuration [see Case XXIII described above], the simpler operation of mastoidectomy if the aural lesion be acute.

With as little disturbance as possible the simple Schwartze operation was rapidly completed and the needle exploration and drainage of the abscess in the temporo-sphenoidal lobe were done. The patient's condition was very low and he survived operation only twenty-four hours. At autopsy a chronic abscess with much softening of surrounding brain tissue from apparently acute infection was found.

12. Facial paralysis or paresis. Two patients manifested gross paralysis.

Paralysis was present in Case LXXVIII prior to operation, and it was found impossible to complete the radical operation, owing to the occurrence of twitching on touching any part of the mastoid antrum and owing to the absence of normal anatomical landmarks. However, a dry ear was obtained, and now, two years later, there is only partial loss of power in the muscles of expression.

In Case LX the patient was subjected to a radical operation in May, 1933. Complete facial paralysis was evident on the day following operation, although no twitching was observed at operation, nor was the facial nerve visible. This patient now (November, 1933) has a dry ear, but only partial recovery of the facial nerve has so far occurred. It was a post-influenzal case with a curious necrotic appearance of the mastoid antrum and surrounding parts.

Eight patients manifested minor facial pareses. Two of these, Cases XXIII and XXXVII, occurred during the draining of cerebellar abscess, and the appearance of the paresis was not associated immediately with operation. In Case XXIII the facial paresis occurred sixteen days and in Case XXXVII six days after operation. In a third case, XXXIX, facial paresis occurred two days after operation (paresis persisting for only a few days). It was probably due to œdema in this, a case of spreading osteomyelitis. In the five other cases pareses persisted for periods of a few days to four months. With the exception of Cases XXXVII, XXXIX and LX, all were associated with the presence of visible cholesteatomatous material. Therefore it is reasonable to presume an added risk of this operative complication in the presence of cholesteatoma.

13. Intracranial abscess. Three forms of intracranial abscess were encountered:

(*a*) Extradural abscess in the posterior fossa was observed in two cases, but did not even prolong convalescence, as drainage was easily obtained.

(*b*) Temporo-sphenoidal abscess was present in two cases, one patient being moribund on admission to hospital. In the other case a trephining operation was performed and the abscess was emptied, but the patient's condition was very grave, and he only survived operation twenty-four hours. In both cases recognition of the condition was too late for any reasonable chance of successful treatment.

(*c*) Cerebellar abscess, on the other hand, was quite amenable to operative treatment. Although the three patients with cerebellar abscess were all desperately ill and there was a tremendous loss of cerebellar substance, all survived, and after prolonged convalescence had no permanent disability resulting from the cerebellar deficiency.

14. Aural polypus. The presence of gross aural polypus was observed in seven cases. The following gives an idea of necessary treatment, each case having to be treated on its merits.

(*a*) In Cases XV and XIX aural polypi were removed, but in view of recurrence of the polypus formation and persistence of discharge, a radical mastoid operation was undertaken, the polypus being dealt with at the same time. Dry ears resulted in average time.

(*b*) In Case LXIV the polypus was removed when the radical mastoid operation was performed. This latter operation was deemed necessary owing to the very profuse and persistent discharge.

(*c*) In Case XXVIII a radical mastoid operation had been attempted elsewhere five months previously. When this patient was first seen, a huge aural polypus was presenting through the remains of the *membrana tympani* and there was profuse discharge. The polypus was removed and the radical operation was completed. In four weeks the canal was dry and epithelialization practically complete.

(*d*) In Case XLVI the patient had had an aural polypus removed five years previously to being first seen. He had only a trace of hearing, persistent, malodorous discharge and giddiness. The remains of the polypus were removed and a radical mastoid operation was performed. The ear was dry in seven weeks, and there has been no recurrence of discharge or other symptoms, hearing remaining as before operation.

(*e*) In Case XLV the patient had a huge sloughing polypus, raised temperature, and a tender mastoid. A Schwartze operation was performed, the polypus being removed at the same time. The wound was healed and the ear dry within three months.

(*f*) In Case LXXII there was a history of earache and discharge for three weeks only, the mastoid area was tender, reddened and œdematous, and a large polypus was visible. A Schwartze operation and removal of the polypus were undertaken. In two weeks the ear was dry and the wound healed in six weeks. There has been no recurrence.

Generally it appears that the presence of aural polypus (and especially if it recurs after removal) is an indication for undertaking a radical mastoid operation, but such indication cannot be deemed absolute, as is evidenced above.

15. Seven cases of lateral sinus thrombosis were seen. Three were associated with cerebellar abscess (see under 12).

Of the remaining four cases, one (number VII) was a case of pyæmia; the patient recovered. The second patient (Case LXII), a male, aged nine years, had the internal jugular vein ligated and the thrombosed sinus incised a week after a Schwartze operation at which perisinus and extradural abscesses were drained.

The third thrombosis (Case LXVI) occurred in a patient aged sixty-five years, whose convalescence was not retarded to any appreciable extent.

The fourth patient (Case LXXXIII) had a perisinus abscess and thrombosed sinus discovered at the time of a Schwartze operation.

In Cases LXII and LXXXIII subsequently a radical mastoid operation was necessary on account of persistent discharge. In Case LXII primary operation was undertaken in March, 1930, the radical operation in January, 1931, and yet in spite of secondary suture of the mastoid wound in August, 1931, some discharge was still present at the patient's last attendance at the end of that year. Apart from his living in a slum area, probably with insufficient and unsuitable food, and general want of cleanliness, I was unable to assign any cause for his want of progress.

Influence of Environment, Hygiene, Food et cetera.

Included in this series is a small number of children from slum homes and a children's institution (Cases LXXXV to XCI inclusive, LXII, LIII). It was found possible to obtain a dry ear and healed wound within an average time under city hospital conditions (many of the patients were nursed on verandas). However, on return to the children's home or slum home a recurrence of discharge occurred in all these cases, although the technique of the operative work was precisely as in the remainder of the series.

I was very impressed with the considered opinion of the medical officer for the home from which some of these cases came. He stated that he had tried without success most of the usual local ear treatments suggested for otorrhœa. The few patients subjected to operation fared no better, in spite of the temporary freedom from discharge while they were in hospital. We must take notice of such an experience of failure coming, as it did, from a very keen observer.

This failure of treatment in young children in such environment, in spite of one or more aseptic or antiseptic local aids, and in spite of operative care, must be due to: (i) possibly non-regularity and incompleteness of local after-treatment, or (ii) probably the institutional life, want of proper hygiene and suitable food, and (iii) no doubt in part to the general poorness of "soil" being dealt with. The last factor, though a definite one, must necessarily be overshadowed by the other two, as it is comparatively easy to produce dry ears in these children under ordinary city hospital conditions.

Watson Williams,[3] in discussing the fact that suppurative *otitis media* begins in early life, states that:

> Recent work strongly suggests that a relative hypovitaminosis is the real starting point of these troubles [that is, of catarrhal tendency and adenoid hypertrophy and so of their sequela, *otitis media purulentia*].

He subsequently adds:

> The prophylaxis of otitis—and therefore of the bulk of adult human deafness—lies in the hands of the physician

during the early years of life. Add to this treatment the surgical care of chronic rhinitis and adenoid hypertrophy, and the preventative measures will limit the number of cases of *otitis media purulentia*.

In the absence of syphilis, tuberculosis or other debilitating factors, this statement suggests the probability that a similar cause may operate in delaying healing of middle ear and mastoid wounds in childhood, such delay and difficulty being a comparatively common occurrence in public hospital practice.

Discussing acute *otitis media*, Dan McKenzie[4] said that:

Judging by the speeches, the results were the same, but the treatments different; it was an unfortunate thing that medicine could not be practised by statistics.

Conclusion.

One wonders, when one reads of the diversity of opinion concerning treatment of acute *otitis media* and chronic otorrhœa, just how much is known of actual curative or even effective treatment, and whether there is not too great a tendency to consider the ear as the whole field to be treated. The statement of Watson Williams referred to above could be amplified in so far as it relates to prophylaxis, but it could also be extended to include the attention of physician and general surgeon in connexion with the established disease.

In conclusion, it behoves us to put our best endeavour collectively as a profession to this problem of prevention and treatment of acute and chronic *otitis media* and its associate, mastoid disease, which, after all, constitute not only a medical problem, but a grave social and economic menace.

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ON APHASIA.

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IN 1915 Sir Henry Head made a collection of Hughling's Jackson's papers on aphasia and published them in *Brain*, of which he was then the editor. These were accompanied by a summary and notes which greatly helped in making Jackson's views clear. In 1920 Head delivered the Linacre Lecture on "Aphasia and Kindred Disorders of Speech" at Saint John's College, Cambridge, and the Hughlings Jackson Lecture on "Aphasia: An Historical Review" in the same year. In 1923 he wrote a paper on "Speech and Cerebral Localization". Each of these was published in *Brain*. In 1926 his book on "Aphasia and Kindred Disorders of Speech" appeared. In 1932 Dr. James Taylor included the more important of Jackson's papers on aphasia in the second volume of the "Selected Writings of John Hughlings Jackson". In all his publications Head is greatly influenced by Jackson. My object in this paper is to secure greater recognition for their work on aphasia, which I regard as of the highest value. I shall first give a summary of Jackson's views, illustrated by quotations from his writings, and then discuss Head's work quite briefly. The historical aspect is also important and has been specially dealt with by Head. It should not be disregarded.

It is a lamentable and most remarkable fact, and one which I wish to emphasize, that Jackson's work on aphasia was almost entirely ignored by his contemporaries; so much so that when his collected papers appeared in *Brain* in 1915 there was general surprise. It was quite unknown that the subject was one of which he had made a most profound and careful study. These papers cover a period of about thirty years, from 1864 to 1893. Broca, in 1861, advanced the theory that the faculty of speech was centred in the convolution that goes by his name. In 1868 there was a discussion on aphasia at the annual meeting of the British Medical Association held at Norwich. Broca opened and Jackson followed. Broca's paper was published in full in a French journal, whereas Jackson's remarks have only come down to us in a brief abstract which appeared in the *Medical Times and Gazette*. He denied that there was any such thing as a "faculty of speech" or a "faculty of memory". He divided speech into two distinct forms, "intellectual" and "emotional". The medical profession implicitly accepted Broca's teaching, but Jackson's views were ignored. The chief reasons, no doubt, were that anatomical questions of localization occupied the attention of neurologists at that time, and the dominant influence of the French school, with Trousseau and Charcot at their head. Moreover, Jackson was then a young man and little known. Still, it does seem strange that his own countrymen should have completely failed to realize the fact that a man of the highest intellectual gifts, with quite exceptional psychological insight and clinical acumen, was living in their midst. The mechanical view generally taken of the function of speech at that time is well shown by the diagrams in the text books. There is no doubt that these diagrams did a great deal of harm. The result was, as Head very truly says, that serious students lost all interest in a subject so divorced from reality, and turned their attention to things of a more immediate practical utility. In 1906 Marie made his famous attempt to put the whole thing on a rational basis. His methods were undoubtedly provocative. Perhaps that was the reason that he did not receive the amount of support that he deserved. Strange to say, he seems to have been entirely ignorant of Jackson's writings on aphasia. Head has succeeded in putting the study of aphasia on a more rational

basis, exercising his extraordinary industry and determination, first in collecting everything Jackson wrote and thoroughly absorbing his doctrines, and secondly in making an exhaustive study of personally observed subjects injured in the war. Moreover, he has introduced a number of new tests, which have been largely suggested by his previous work on sensation. No doubt some of these will be generally adopted.

It is now necessary to summarize Jackson's views. As a fundamental postulate he stated that speech was a psychical process, a product of activities of the mind. It has been acquired by imitation and daily developed by constant practice and instruction. It was the most complete evidence we had of mental activity. He refused, therefore, to localize it in a small convolution. He said that the whole brain must take part in the production of speech. Broca's convolution is a part of the motor area and controls the movements of the muscles concerned in the production of speech. It is the centre for the movements of the lips, tongue, larynx *et cetera*, by means of which we utter the words that are used in speech. Mental operations are carried on at a much higher level. Localization of speech is therefore unthinkable. Head said that it would be as reasonable to expect a centre for eating as for speech. Jackson himself said that the ridiculous suggestion might be made that there was a "buttoning centre". He thus derided the conception of a speech centre. He was not one to speak scornfully of others; so this absurd comparison carries all the more weight. He insisted upon psychological terms being kept absolutely distinct from anatomical or physiological. Hence such words as "psycho-motor", "psycho-sensory", "motor aphasia" were not permissible. He said that such mixed words and phrases were the bane of neurology. An aphasic is sometimes said to have lost the "memory for words". He pointed out that not only was the word "memory" tautological, but that this statement told us nothing which we did not know already. He thought that it was better to avoid the use of the word "memory" altogether. It follows that the phrase "amnesic aphasia" did not meet with his approval. It is based on the idea that there is a faculty of memory. But Jackson said that there was no "faculty of memory apart from things remembered". With regard to the use of the phrase "amnesic aphasia", or the assertion that the aphasic had lost "the memory for words", Jackson said that we might as reasonably say that a hemiplegic could not move his hand because he had lost the memory of the necessary movements. It is obvious that the word memory should be used with great caution. He also said: "Put down exactly what the patient can't do and what he can do." He also insisted on the necessity of a wide clinical experience. He did not often use Greek terms, like "agnosia", "alexia", "apraxia" *et cetera*. One is apt to be deceived by their use into thinking that some mental property is involved.

I shall now quote from a paper published in 1874, in *The Medical Press and Circular*, "On the Nature of the Duality of the Brain", which is included in Volume II of the "Selected Writings of John Hughlings Jackson".

Speaking is not simply the utterance of words. The utterance of any number of words would not constitute speech. Speaking is "propositionising". To this meaning the term speech must be rigidly kept. That the speechless patient cannot propositionise aloud is obvious; he never does. But this is only the superficial part of the truth. He cannot propositionise internally. He can neither say "gold is yellow" aloud or to himself. The proof that he does not speak internally is that he cannot express himself in writing. He may write in the sense of copying writing and can usually copy print in writing characters. Now, if he can speak internally, why does he not write what he says to himself? He can say nothing to himself and therefore has nothing to write.

In a footnote to this paragraph he quotes from a paper he wrote in the *Medical Times and Gazette*, November 7, 1868.

It is not enough to say that speech consists of words. It consists of words *referring to one another in a particular manner*, and without a proper interrelation of its parts a verbal utterance would be a mere succession of names embodying no proposition. A proposition, *e.g.*, "gold is yellow", consists of two names, each of which, by conventional contrivances of position, etc. (called grammatical structure in well developed languages) *modifies the meaning of the other*. All the names in a random succession of words may, it is true, one after the other, excite perceptions in us, but not perceptions in any relation to one another deserving the name of thought.

And again:

When we apprehend a proposition, *a relation between two things is given to us*, is, for the moment indeed, forced upon us by the conventional tricks which put the two names in the respective relations of subject and predicate. We receive in a twofold manner, not the words only, but the order of the words also.

To quote again from another footnote to the paragraph quoted above:

In cases of defect of speech there is difficulty in writing. In some cases of defect of speech there remains considerable power of writing. I know that cases of *loss* of speech have been recorded by eminent physicians, in which ability to write was not lost. The chronic cases of this kind that I have seen have been mostly cases of pretended loss of speech. Besides, how is it conceivable that a person who has lost speech should be able to express himself in writing? If a person can express himself in writing, he gives proof that he has not lost speech. We must speak internally before we can write—before we express ourselves in writing.

He said that internal and external speech were identical.

He goes on to say:

There are two ways in which words serve in thought; speech is but one way, and this, whether it be external or internal, is, speaking physiologically, a function of the left hemisphere. But the cases of persons who have lost speech show, I consider, that speechlessness does not imply wordlessness: for if I say to a man who cannot speak at all "gold is yellow" (or anything not difficult to him) he readily understands it.

This shows that he still has processes for words in his brain. His ideas of gold and yellow are only to be reached through words. If he had not processes for words *in himself* how could he possibly understand my words? My words revive his words. If they did not, I might as well speak to him in a language he did not understand, or clap my hands.

Quoting again:

Let us consider the two different ways in which, as I suppose, words serve in the two halves of the brain. I illustrate by propositionising and receiving propositions. To receive a proposition and to form one are plainly two very different things. It is true that in *each* case *one's* own nervous centres for words are concerned; but when we receive a proposition the process is entirely automatic and unless we are deaf, or what is for the time equivalent, absorbed, we cannot help receiving it. When anyone says to me "gold is yellow", I am, so to speak, his victim, and the words he utters rouse similar ones in me; there is no effort on my part; the revival occurs in spite of me if my ears be healthy. Moreover, the speaker makes me a double gift; he not only revives words in my brain, but he revives them in a particular order—he revives a proposition. But if *I* have to say "gold is yellow" I have to revive the words and I have to put them in propositional order. The speechless man can receive propositions, but he cannot form them—cannot speak.

The left half of the brain is that by which we speak, for damage of it makes us speechless; the right is the half by which we receive propositions.

Note the vigour and clarity of his exposition. These quotations all deal with fundamental principles and have been chosen because they display very completely the masterly way in which he handles his subject. His literary style has been very adversely criticized. Probably, I cannot help thinking, by rapid readers who were not prepared to give the necessary time and thought to the reading of his papers. For they should be read with the utmost care and attention. They were very carefully prepared. Dr. Mercier tells us that one paper, to his certain knowledge, was revised thirteen times.

Jackson's suggestion that the right half of the brain played an important part in speech was not accepted by his contemporaries. Yet it is a vital contribution to the theory of aphasia. Almost all writers have overlooked the fact that both auditory and visual "word-images" are intact. If it were not so, how could an aphasic find his way about? An aphasic can usually obey a spoken or written command of a simple nature. Such a man can generally play card games or dominoes. Had these facts been clearly recognized at the time this paper of Jackson was published (1874), the theory of "sensory aphasia" would never have met with general acceptance. To quote again: "Most so-called speechless patients can utter the words 'Yes' and 'No'." These words have become automatic from prolonged and frequent use; and as used by an aphasic they have no propositional value. The word uttered is generally the only one used. An aphasic who has the word "no" may be quite unable to say "no" when asked. Jackson quoted a case in which he could not get the patient to say "no" when asked. It occurred to him to ask a ridiculous question. He then said: "Are you a hundred years old?" The indignant reply was: "No!" Kinnier Wilson, in the discussion on aphasia at the Neurological Section of the Royal Society of Medicine, quoted a remarkable example of this. A man had had a paralytic stroke and was absolutely dumb. He had no words, not even "yes" or "no". But during the war he was a spectator of the destruction of a Zeppelin at Potter's Bar. When he saw the wonderful sight he called out "Hallelujah", which word he has never since repeated, in spite of innumerable efforts to induce him to do so.

Jackson also discussed in detail the nature of the recurring utterances which are a striking feature of aphasia. He mentioned a most remarkable case recorded by Dr. Russell, of Birmingham. The man lost speech and became paralysed on one side after hard work in compiling a catalogue. He could only say "List complete". Such phrases are generally repeated from time to time. Jackson thought they were utterances about to be made at the time the stroke took place. How could such perfectly formed phrases arise in a grossly damaged left hemisphere?

Next let us consider "jargon-aphasia", that condition in which the aphasic utters a rapid succession of words one after the other without any meaning. It is the only form in which words are used in excess. Jackson thought that this form occurred in those of excitable voluble nature, in whom words often followed each other in rapid succession in health.

"Imperception" is another word used by Jackson. He intended it to mean a state in which the patient's visual or auditory images were defective or absent. It includes what is generally called "word deafness" and "word-blindness", but is of more general application. Generally speaking, there was no "imperception" in aphasia, according to Jackson, as shown by the aphasic usually retaining intact both visual and auditory images. But if "imperception" be added to aphasia, the patient would show signs of inferior comprehension and might appear to be suffering from imbecility. On the other hand, if he were unable to formulate a proposition, he would be "lame in thinking".

I will conclude my remarks on Jackson by quoting what he has to say about swearing. It is too good to be omitted. It is from the *London Hospital Medical Reports*, Volume I, 1864, page 453.

Swearing is strictly speaking not a part of language. It is a habit which has grown up from the impulse to add force of passing emotions to the expression of ideas. It belongs to the same category as loudness of tone and violence of gesticulation. The distinction of those from language as an intellectual act may be best illustrated by the remark Dr. Johnson once made to a boisterous antagonist: "Sir, you raise your voice when you should enforce your argument." Although oaths differ from mere alterations of tone in that they consist of articulate words, they are generally used in talking, not to express ideas, but to make up by vigour in delivery what is wanting in precision of expression. They may indeed be considered as phrases which emotion has filched from the intellect, to express itself in more definite terms than it could do by mere violence of tone or manner. For oaths had once an intellectual meaning; they expressed ideas and were uttered with a definite intention. Curses have, in fact, formed an element in all religious services; but nowadays intentional cursing is obsolete; it has degenerated into meaningless swearing, which, like cadence and gesticulation, is but a kind of "commentary of the emotions (passions?) on the propositions of the intellect". Vulgar people insert an oath "at the proper intervals in their

speech" as a sort of detonating comma, and thus they render forcible statements which might otherwise strike their hearers as commonplace.[1]

Leaving Hughlings Jackson, I shall now pass on to a consideration of the work of Head, who, as I have already indicated, is a firm disciple of Jackson. In his Linacre Lecture in 1920 he gave an account of his researches on aphasia. His subjects were chiefly young men, casualties in the Great War, suffering from gunshot wounds in various parts of the left side of the head. The lesions were therefore cortical and subcortical. Moreover, the patients were usually intelligent and sometimes highly educated men, and very willing to cooperate in the examination. A number of new tests were employed, some of them of undoubted value. The examinations were systematically carried out and the results accurately recorded. His conclusions are briefly that disorders of language cannot be classified under the old headings. Such terms as alexia, agraphia, agnosia *et cetera* should be abandoned. They could not be explained as due to destruction of images, auditory, visual or motor. The terms motor and sensory aphasia should therefore be abandoned. He said:

> Any act, demanding for its correct execution a formulated proposition, will certainly be affected, whilst the more closely it corresponds to the matching of two patterns the less it will suffer from these disorders.

It is clear that this conception almost exactly corresponds with the views set out by Jackson. But he did not approve of the word "proposition". He therefore suggested that the function affected in those pathological conditions might be called "symbolic thinking and expression". (Head subsequently used the word "formulation" instead of "thinking", so as to make the phrase of more general application.) I cannot help thinking that he was unwise to alter Jackson's terminology. It must be admitted that the word "proposition" is awkward; but what other word could be used? Jackson used the word in an unusual sense, no doubt. But we must have a word, and that is the best we can use. The mere fact that Jackson used it gives it an added value.

Head said that lesions situated in different parts of the brain produce a dissociation of function. This is similar to what takes place in testing the cortical aspect of sensation.

The various dissociated forms of "symbolic formulation and expression" may be classified as follows:

(*a*) Verbal aphasia. In this form the chief difficulty is with words. "Words are evoked with difficulty and the vocabulary is greatly restricted; enunciation is slow and halting." In addition, writing may be extremely difficult or almost impossible, and in any case "tends to show the same errors as articulatory speech". The lesion is situated in the lower part of the precentral gyrus.

(*b*) Nominal aphasia. There is difficulty in naming letters, words or objects. "Writing is gravely affected" and reading is much hampered. The lesion is in the occipital lobe.

(*c*) Syntactical aphasia. The patient talks jargon. He is apt to omit prepositions and conjunctions in talking. The lesion is in the temporal lobe.

(*d*) Semantic aphasia. The word "semantic" is derived from a Greek word meaning to signify. The patient fails to realize the full significance of words and phrases. He cannot play games, and jokes set out in print or pictures are seldom fully appreciated. The lesion is in the supramarginal gyrus.

Head frankly admitted that these groups were not strictly defined and that there was often a blending of forms. For instance, it is very evident that "semantic" defects are common to many forms of aphasia. It is interesting to note the importance attached to grammatical defects. In the discussion already referred to, it was clear that the majority of the speakers were not prepared to reject the old classification altogether, unsatisfactory though it were. It was felt, no doubt, that there was an almost infinite variety of disorders of speech and that really definite grouping was not practicable. However, from Head's point of view, it matters not at all whether we accept his four groups or not. If they do not stand the test of time, let us discard them altogether. I consider his grouping is useful, as I find myself constantly using his forms when thinking or talking on the subject.

It remains to discuss what is the chief value of Head's work. It is, I consider, the adoption by him of the scientific method. He adopted methods which tested the different aspects of mind, and put down his results in tabulated form. It is true that he had a unique opportunity. But only a man of immense industry and patience could have carried through these numerous and prolonged examinations. Moreover, his previous work on the cortical aspect of sensation must have helped him a great deal. Also he dispensed, wherever possible, with the use of Greek terms, such as "apraxia", "agnosia", "alexia". The use of such is apt to mislead one. There is no need for any of them, except perhaps "anarthria", which means a difficulty or failure of articulation, "anarthria" being failure and "dysarthria" disturbance of articulation. His anatomical observations are also of great value. With regard to the psychology of speech, it seems hardly possible for anyone to add to what Jackson has taught.

Finally, Head did not pretend to have made a final pronouncement on a subject so difficult that for more than thirty years it greatly occupied the mind of England's greatest empiric philosopher and founder of British neurology, Hughlings Jackson.

[1] From a "Biographical Memoir", by Dr. James Taylor, prefixed to "Neurological Fragments".

Reports of Cases.

A CASE OF ACUTE LYMPHATIC LEUCHÆMIA WITH LEUCHÆMIA CUTIS AND LEUCIMIDES.

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CASES of acute lymphatic leuchæmia associated with *leuchæmia cutis* and petechial and purpuric skin rashes, that is, leucimides, are sufficiently rare to warrant the publication of this case.

Clinical History.

George R.A., aged fifty-nine years, a municipal valuer, was admitted to the Melbourne Hospital on August 4, 1933, under the care of Dr. S. O. Cowen, to whom I am indebted for permission to publish the case. The patient had been perfectly well till five weeks before admission, when he became feverish and complained of pains in the back, with the result that he went to bed and was treated for "influenza". Four weeks before admission, a brownish elevated rash appeared on the whole of the anterior aspect of the trunk; it gradually became more prominent and more extensive. At the same time he noticed himself becoming weaker, losing his appetite, and at times he felt feverish. Several days before admission, numerous pink spots appeared all over the anterior aspect of the trunk and over the upper thirds of both thighs. Sore throat had been present for the week prior to his admission to hospital, but at no time had there been any bleeding from the gums. No loss of weight had occurred prior to his illness, nor had there been any urinary or bowel upset.

The only feature of note in the past history was an operation for a perforated gastric ulcer nine years previously.

Examination showed a pale, well nourished man, with a bruise two centimetres in diameter beneath his right eye, rather dyspnœic and propped up in bed. There were sordes on the lips; the tongue was dry and furred; the gums were sound and not spongy; on the right tonsil there was a tough whitish membrane which could not be detached. The heart and lungs were normal. The spleen was just palpable below the costal margin and the splenic dulness was increased upwards. In the left axilla a few slightly enlarged soft glands were palpable; smaller glands could also be felt in the right axilla and in both groins. One small gland was noted in the left supraclavicular fossa. Extending over the anterior aspect of the trunk there was a nodular, brownish, non-inflammatory rash, elevated above the surface of the surrounding skin, the individual lesions varying in diameter from 0·5 to 1·5 centimetres. These nodules were intimately associated with the skin and moved with it; they did not extend on to the extremities, nor further backwards than the posterior axillary line. Between these nodules there were many petechial and purpuric spots which extended on to the upper parts of the thigh. The application of a tourniquet to the arm, with just sufficient force to obliterate the venous pressure for three minutes, resulted in the appearance of many petechiæ distal to the site of pressure.

The blood was examined on August 7, 1933, with the following results:

Red cells, per cubic millimetre	3,800,000
Hæmoglobin value (Sahli)	59%
Colour index	0·77
White cells, per cubic millimetre	26,700
Neutrophile polymorphonuclear cells	0·75%
Old metamyelocytes	1·50%
Young metamyelocytes	0·25%
Small lymphocytes	12·50%
Immature lymphocytes	83·50%
Lymphoblasts	1·50%

The stained film revealed the following points. The erythrocytes showed slight anisocytosis and a small degree of hypochromia. A very occasional normoblast was seen. Reticulocytes were less than 1%. Platelets were scanty. The predominating white cell was a palely-staining non-granular cell with basophilic cytoplasm (Figure I); it formed a large percentage of the leucocytes present (83·5%). There were also a few typical lymphoblasts present and also some mature lymphocytes. The peroxidase reaction showed all but 6% of the cells to be non-peroxidase reacting. These findings were in accord with a diagnosis of acute lymphatic leuchæmia.

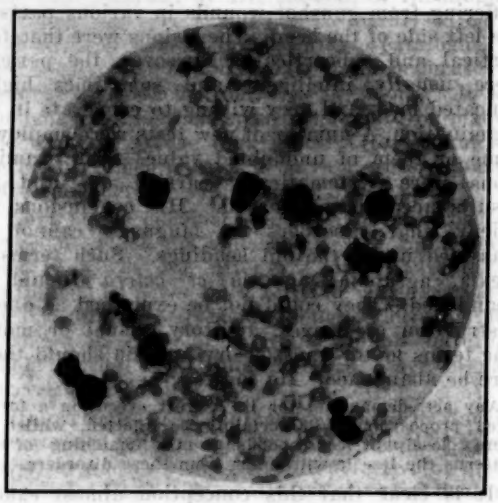

FIGURE I.
Immature lymphocytes in blood film (×325).

On August 11, 1933, an attempt at blood culture yielded no growth.

On August 7, 1933, the fundal arteries were seen to be small and slightly sclerosed. No deposits or hæmorrhages were present.

On August 8, 1933, a throat swab was taken. In smear and culture no Klebs-Löffler bacilli were seen.

The temperature varied from 36·9° to 39·3° C. (98·4° to 102·8° F.). The petechial and nodular rash spread on to the neck. The patient rapidly became weaker and died on August 10, 1933, that is, six days after admission to hospital and six weeks from the onset of the illness.

Post Mortem Findings.

I am indebted to Dr. Wright-Smith for an account of the *post mortem* examination. The following is a brief summary of his notes:

> The visceral and parietal layers of the pleura, pericardium and peritoneum were studded throughout with small white tumour-like masses; in addition, the first two membranes showed recent small hæmorrhages.
>
> The heart muscle was red and soft and showed small white tumour masses. Similar white masses were also found in the mucosa of the trachea, in the submucosa of the stomach, in the head of each epididymus, on the surface of the kidneys and scattered throughout their whole substance.
>
> The liver was grossly enlarged; it weighed eighty-four ounces; its substance was yellowish and ill-defined nodules were present throughout. At the upper pole of the right lobe was a fairly large, white, soft tumour mass in the liver substance, measuring about two centimetres in diameter.
>
> The spleen was enlarged, weighing eight ounces; the pulp was dirty greyish red in colour, soft and almost fluid, and showed numerous areas of irregular infarction.

The cervical and axillary glands were slightly enlarged and of uniform whitish appearance. The mesenteric glands were enlarged, greyish white and infiltrated. There was no enlargement of the tracheobronchial glands.

The tibial bone marrow showed throughout a greyish yellow infiltration, whilst the rib marrow was greyish red in colour. A smear of the bone marrow showed a predominance of lymphoblasts. Microscopical examination of the skin nodule (Figure II) showed that

FIGURE II.
Lymphoblastic infiltration of skin (×325).

it consisted of lymphoblastic infiltration. A similar lymphoblastic infiltration, both diffuse and nodular, occurred in the heart muscle, in the liver and kidney (Figure III) and in the bronchial and mesenteric glands. The nodules in the liver were composed of lymphoblasts, whilst the normal structure of the spleen was replaced by tissue of the lymphoblast type.

FIGURE III.
Lymphoblastic infiltration of kidney (×100).

In all histological sections the predominating cell was of the lymphoblast type, but many cells were assuming a fusiform and spindle shape. In some areas, especially the spleen, many tumour-like giant cells were present. These appearances suggested a lymphosarcomatous picture, and this appeared to be a case in which the distinction between lymphosarcoma and leuchæmia could not sharply be drawn.

Discussion.

The interesting features were the nodules situated in the skin and in many of the viscera and serous membranes associated with a blood picture of acute lymphatic leuchæmia. The following diseases, rarely associated with all the above findings, were considered in arriving at a diagnosis:

1. Lymphadenoma.—The occurrence of lymphadenomatous nodules in the skin is most unusual, and Sir Humphrey Rolleston[1] was able to collect only twelve cases in the literature. These skin lesions, usually associated with marked pruritus, varied from the size of a pin's head to a flattened plaque and more often affected the face and scalp than the trunk. Only very rarely does a leuchæmic blood picture occur in the terminal stages of lymphadenoma. In this case there was no clinical or pathological evidence for the diagnosis of lymphadenoma.

2. Leucosarcoma.—Leucosarcoma, as described by Sternberg, is characterized by a tumour, usually situated in the mediastinum, by glandular enlargements, by infiltration of the viscera, and eventually by the escape into the blood stream of tumour cells which are large lymphocytes, causing a leuchæmic blood picture. Chloroma is closely allied to this disease and along with *leuchæmia cutis* these three diseases could be called nodular leuchæmias. Sometimes the leuchæmic blood picture precedes the formation of the nodules; at other times it follows them. In this case there was no evidence of Sternberg's disease.

3. Lymphosarcoma.—Piney[2] states that lymphosarcoma starts in a more or less localized way and that it never becomes completely systemic in its distribution. Should the superficial glands be affected, they are hard and show little tendency to softening. Very often either the mediastinal or the retroperitoneal lymph glands are attacked, causing tumours. Lymphatic leuchæmia is occasionally a late finding in lymphosarcoma, and those authors who regard all hæmoblastoses as being truly neoplastic will regard the relationship of these two diseases as close. Both lymphosarcoma and chronic lymphatic leuchæmia have another feature in common, in that they both respond to deep X ray therapy. Macleod[3] states that the majority of cases of *sarcoma cutis* consist of large round cells and rarely of small round cells or of spindle cells or of giant cells; they are very malignant and are secondary to sarcoma elsewhere.

The diagnosis between lymphosarcoma and acute leuchæmia could not be established on histological grounds alone, but the rapid course of the illness, the typical acute leuchæmic blood picture, the absence of marked glandular enlargement, and the failure to discover a primary malignant tumour tended to rule out lymphosarcoma. The case was therefore regarded as one of acute lymphatic leuchæmia with generalized leuchæmic infiltration. It is of especial interest owing to the associated *leuchæmia cutis* and the leucimides. A case can be designated as *leuchæmia cutis* only when there is a lymphocytic skin infiltration *plus* a leuchæmic blood picture.

Gowers[4] collected 159 cases of leuchæmia and found leuchæmic nodules thirteen times in the liver, ten times in the kidney, whilst these nodules in the skin, which were first described by Biesiadecki in 1876, were very rare. Osler and Macrae[5] state that *leuchæmia cutis* occurs most frequently in acute lymphatic leuchæmia, whilst Sequeira[6] states that it is commonest in the chronic type of leuchæmia. Even as regards the distribution of the skin condition there is no universal agreement. Sequeira[6] states that it is commonest on the face and resembles nodular leprosy, whilst Macleod[3] finds that the favourite site is on the anterior and lateral aspects of the trunk. In appearance the nodules are almost indistinguishable from secondary sarcomatous deposits. The question naturally arises, first, why in certain cases *leuchæmia cutis* occurs, and secondly, whether these nodules are due to a passive infiltration of the skin with cells from the blood stream or to an active proliferation of local tissue cells. This problem has not yet been settled.

Barney[17] quotes a case of Herxheimer in which there was a nodular eruption over the body and at autopsy nodules situated in the liver, kidneys, dura and pericardium, with a subleuchæmic blood picture. A section of an excised skin nodule showed an infiltration with suspicious myeloblasts giving no reaction to the oxidase test, whilst similar cells in the blood, spleen and bone marrow gave a positive oxidase reaction. He mentions that this anomaly may have been due to the rapid development of these cells from the adventitial cells of blood vessels, and to a less extent from the spindle cells of connective tissue, whilst the myeloblasts in the lumen of the blood vessels were "oxidase-positive" because they were metastatic from the bone marrow and spleen. Piney[18] mentions that very immature myeloblasts do not give the oxidase reaction, but behave like lymphoblasts. Ketron and Gay,[19] however, found on biopsy of a nodular skin eruption with a normal blood picture an infiltration in the corium of "oxidase-negative" cells resembling connective tissue and endothelial cells. Five weeks later another section of a skin nodule, now that a leuchæmic blood picture was present, showed an infiltration in the cutis of "oxidase-positive" myeloblasts. From these two cases it is impossible to draw a conclusion whether the skin nodules are due to local metaplasia of cells or to a passive infiltration of cells. Local metaplasia of cells, however, would offer the most satisfactory explanation for the occurrence of the spindle cells as seen in this case.

This case also demonstrated very well the polymorphic rashes (known as leucimides) occurring in acute lymphatic leuchæmia as shown by the presence of petechiæ and purpuric spots on the trunk and on the upper thirds of the thighs and by the large extravasation of blood beneath the right eye. The cause of the purpura is unknown, but it may be due either to a thrombosis or to a leucocytic blocking of vessels or possibly to a secondary infection from bacterial emboli.

The membrane on the right tonsil was non-inflammatory and was due to a local necrotic process, as seen in acute leuchæmia.

This case was regarded as one of acute lymphatic leuchæmia in contradistinction to the subacute type or to an acute exacerbation of a chronic leuchæmia, for this man was perfectly well till within six weeks of his death; the glands were not very markedly enlarged, as is typical in chronic lymphatic leuchæmia, and the whole illness simulated an acute septicæmia. At the age of fifty-nine acute lymphatic leuchæmia is unusual, and Thursfield[20] records that 75% of cases of this type of leuchæmia occur before the age of ten years and that its course is very rapid. This case also illustrates the fact that the more acute the onset of the disease, the more likely is it to assume the lymphocytic form. Acute leuchæmia, as clearly shown by this case, must be regarded as a disease not alone of the single species of cells in the blood or of single hæmopoietic organs (bone marrow, glands, spleen), but as a thoroughly generalized disease of the system of the leucopoietic apparatus and of small cell centres outside the ordinary blood manufacturing centres.[21]

Summary.

1. A case of acute lymphatic leuchæmia with generalized leuchæmic infiltration has been described.
2. The rare association of *leuchæmia cutis* and leucimides with acute leuchæmia has been pointed out.
3. A brief survey of some diseases causing nodular tumours in the skin and viscera with a leuchæmic blood picture has been given.

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Reviews.

THE HUMAN SKELETON.

WHEN Frazer's "Anatomy of the Human Skeleton" first appeared in 1914, it at once attracted a great deal of attention on account both of the new methods of approach to the subject and the series of illuminating illustrations it contained. It has ever since remained a source of inspiration to teacher and student alike. The third edition has now appeared.[1]

The work is more than a mere description of the human skeleton, for the bones are not treated as separate entities, as things in themselves, but as integral parts of the human body, each bone being considered in relation to the neighbouring structures. In this way the student's attention is drawn to the true significance and the real meaning of the various bony features. In some cases, where only comparative anatomy or embryology can throw light on a difficulty, the help of these sciences is requisitioned to great advantage.

It was the author's aim in writing the book to lead the student to think of the skeleton as something more than a dry subject for study, and to search for the reason for the hundred and one abstract and concrete qualities which his own observation will prove any particular bone to possess. How well he has accomplished his aim is apparent to anyone who peruses any section of the work.

It is impossible to comment on all the sections, but particular attention is drawn to the masterly treatment of the regions of the shoulder and pelvis, and of the humerus and femur, and of the skull bones. Especial mention must also be made of the author's presentation of the temporal bone. This is always considered by students to be difficult, but the author's approach from an embryological point of view at once arouses the student's interest and is the first step towards the removal of the difficulties.

The general excellence of the work needs no especial comment. The book is read and prized wherever anatomy is studied, and it has already earned its place as a classic in anatomical literature.

In this new edition, no departure from the original plan is made, but here and there are seen extra paragraphs in an attempt to make certain parts a little clearer and to provide elaboration of the original text. Further remarks are noticed, for example, on the cervical rib, embryology of the vertebral column, comparative anatomy of the atlas, "vertebralization" of the occiput and "occipitalization" of the atlas, as well as numerous slight alterations and additions in the text.

The chief changes, however, have been those made in the accounts of the ossification in individual bones. The author points out that there seems to be little doubt that ossification, like other bodily processes, is affected by bodily and environmental conditions generally, such as sex, work, nutrition, atmosphere, social surroundings, and so on. He has therefore tried to give what appears to him a reasonably reliable account of ossification within his environment.

In conclusion, the book is recommended with confidence to every student of anatomy. The student could not do better than approach the subject through its pages, for it is only through such an approach, as is here provided, that he can appreciate properly the importance of a knowledge of the skeleton as an integral part of the study of human anatomy.

[1] "The Anatomy of the Human Skeleton", by J. E. Frazer, D.Sc., F.R.C.S.; Third Edition; 1933. London: J. and A. Churchill. Demy 4to., pp. 300, with 219 illustrations. Price: 28s. net.

The Medical Journal of Australia

SATURDAY, JANUARY 27, 1934.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: Initials of author, surname of author, full title of article, name of journal, volume, full date (month, day and year), number of the first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

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COMPARATIVE MEDICINE.

WHEN people talk of the study of medicine they nearly always refer to the study of disease as manifested in man. Many centuries of tradition justify this usage of the term, but man is merely one of the living creatures in the world, and all living creatures suffer from disease. For some reason or other those who study disease in animals are said to study veterinary science. The degrees conferred by universities on veterinarians are those of Bachelor and Doctor of Veterinary Science. Medicine is admittedly more scientific than it was; it can, however, never graduate as a pure science. Medicine should be regarded as divisible into two sections—human medicine and veterinary medicine.

Comparatively few people realize how dependent the community is on the veterinarian. Australia, with its wool industry as the rock on which its economic superstructure is built, would be in a sad plight were the veterinarian not always at hand with his preventive and therapeutic measures. To realize this one has only to think of the parasites that infect the sheep and of the blowflies that work such havoc among them. Further, each individual member of the community is beholden to the skilled veterinarians whose advice to pastoralists and whose inspection of abattoirs result in a supply of meat that is fit for human consumption. From whatever aspect the activities of the veterinarian are regarded, they must be esteemed as the practical application of the principles of preventive medicine. Since the application of these principles has a bearing on the well-being, the health, of the individual in the community, it is apparent that the practitioner of veterinary medicine is taking an important part in the practice of preventive medicine as known to the practitioner of human medicine. Human medicine and veterinary medicine cannot, therefore, be looked on as exclusive entities; they meet at many points and in several spheres they overlap and intermingle. It is natural that they should be closely linked together. The training of the graduate in one is similar in many respects to the training of the graduate in the other, particularly in the purely scientific subjects and in bacteriology and pathology. In research into disease animals have to be studied. Their diseases must be recognized clinically and understood from the bacteriological, pathological and other standpoints. The practitioner of human medicine who undertakes animal research is not invading the province of the veterinarian; he is working on ground that is common to all students of disease. Much the same may be said of certain parasitic diseases and diseases conveyed to man by animal vectors.

Although all this is perfectly obvious, its application to medical practice is neglected. Veterinary medicine and human medicine in Australia are in fact treated as though they were separate subjects in water-tight compartments. Occasionally one of the Branches of the British Medical Association holds a meeting with one of the sections of the Australian Veterinary Association, but, as far as we can see, there the collaboration ends. There are many subjects on which collaboration should take place; some of them have

been discussed editorially from time to time in this journal. Collaboration will tend to eliminate reduplication of effort, and by mutual understanding and encouragement will make for progress. On previous occasions this subject has been discussed in this journal; and the suggestion has been made that in future Australasian medical congresses a section of comparative medicine should be organized. If this were done, it would be a simple matter to adjust the rules governing congresses so that members of the Australasian Veterinary Association might be made eligible for membership. We have pointed out that there is a Section of Comparative Medicine of the Royal Society of Medicine; and the latest advices from South Africa tell us that at the last South African Medical Congress a resolution was adopted urging the inauguration of the section of comparative medicine. The South African Congress also stipulated that members of the veterinary profession should be eligible for membership. The Federal Council of the British Medical Association in Australia, as the body controlling Australian and New Zealand congresses, should follow the South African example. The step appears to be inevitable; it can result in nothing but progress; there should therefore be no further delay.

Current Comment.

WOOD DERMATITIS.

THE possibility of woods causing a toxic dermatitis has been recognized for many hundreds of years; but only recently, since the modern interest in allergy has aroused a keener spirit of inquiry in such matters, has it been realized that many varieties of wood may cause skin eruptions and that these events are by no means rare. It may, of course, be a more or less obvious line of investigation to test for wood sensitivity in a wood-worker suffering from a skin lesion, but a keen detective instinct is necessary in order to follow the tangled skein in other cases. This is well exemplified in a case reported by Francis E. Senear in an article on dermatitis due to woods.[1] The patient in question suffered for a number of years from a very troublesome dermatitis affecting the hands and feet. It vanished while he was away on vacation, but recurred with renewed vigour on his return, the face and eyes being severely attacked. There seemed no possible contact with any known toxic substance, and his occupation, that of a business executive, did not suggest any likely avenue to explore for a cause. But close inquiry revealed that his hobby was archery, and while he had not handled the targets at all, his most severe attack followed scraping his bows, which were made of yew. The patient, with commendable enterprise, applied the sawdust to a clear area on the forearm, quite on his own initiative, and he and his physician were rewarded by the appearance of a strongly positive reaction on the following day. The dust of white pine, used as a control, subsequently caused no reaction. It was also found that the patient perspired freely while engaged with the bows.

The author remarks that most of the recorded cases of wood dermatitis occurred with exotic woods. In this case the wood was English yew imported into America, so could not be considered native; but he remarks that cases have been recorded following contact with native poplar and sawdust used for sweeping, which presumably was of native origin. He also refers to the report of the International Labour Office at Geneva on the subject of poisonous woods, such as West African box-wood, and points out that certain of these woods are recognized as constituting an industrial hazard. The *Workers' Compensation Act* of New South Wales, among others, is mentioned in this connexion. The method in which the toxic effect is brought about is of great interest. In certain cases the juice or latex of tree or fruit may be highly poisonous, in others it is the sawdust produced during industrial processes that is toxic. It is indeed fortunate that the majority of the offending woods are of tropical origin, for most of the commonly used woods grow in temperate climates, and it appears that the concentration of the toxic principle in these is as a rule relatively low. This is not always so, however; for, as Senear remarks, woods that can hardly be classed as exotic can cause a troublesome dermatitis; for example, Queensland maple. A case of sensitization to this wood after many years of exposure was reported in this journal by J. MacPherson. In other cases the wood may be of tropical origin and be widely used; of this an example is teak, a well known source of trade dermatitis in susceptible persons. Many of the less usual types of lesion are described in this article, most of these occurring after contact with woods not likely to be used in the ordinary commercial undertakings. But the author goes on to say that the usual manifestation is the well known *dermatitis venenata*. In its lesser grades this is a simple erythema; œdema is a constant feature of all attacks of any degree of severity, and vesiculation and pustulation appear when the lesion assumes a more troublesome and, unfortunately, often a more intractable type. The contact areas may alone be affected; but this is not common, for the eruption frequently spreads far beyond the

[1] *The Journal of the American Medical Association*, November 11, 1933.

exposed zone, a fact that may tend to obscure the diagnosis. Moisture augments the action of the dust of most woods, and thus perspiration will increase the amount of toxin absorbed. Senear refers to the various theories of the mode of action of these irritants. There has been a good deal of argument as to whether the action was a direct chemical irritation or a true allergic phenomenon. There seems to be reason to believe that both types of reaction occur. In some cases immunity is gained by the workers, in others a person, once sensitized, remains sensitive, unless indeed it is possible to desensitize him, as has been claimed by a few observers. There can be no doubt as to the general resemblance of the reaction to anaphylaxis in some cases. Thus it has been observed in regard to some woods that a patch test has been followed by a hæmoclastic reaction, the leucocytes in the circulating blood falling rapidly. The progressive intensity of the eruption and the shortened incubation period point to the same process.

In summing up, the author points out that native woods, grown in temperate zones, are probably the cause of toxic dermatitis more often than is generally realized. The toxic agents are most likely non-saturated resinous acids in a free state, or alkaloids. These are most likely to be dangerous while the wood is fresh; but in some instances the risk increases as the wood matures. In the past imaginative writers have attributed extravagant degrees of toxicity to trees, as, for example, in the legend of the mancinella or manchineel tree, which has been described as so poisonous that it was fatal to slumber in its shade. This is a poisonous tree, apparently, as a drop of its sap is reported to have killed a guinea-pig when applied to a wound; but that is no reason why we should believe the story of "L'Africaine" in Meyerbeer's opera, where the alleged unrequited lover of Vasco da Gama, the explorer, commits a simple act of *felo-de-se* by inhaling the poison-laden aroma of the manchineel. Much more important, even though less romantic, are the practical directions of the International Labour Office by which wood dermatitis may be restricted. These recommend exhaust ventilation to remove dust, the use of suitable covers and overalls by the workers, who should also cleanse all exposed parts after work, and the exclusion from the wood industries of all susceptible persons.

THE USE OF 3:5 DIIODOTHYRONINE IN MYXŒDEMA.

THE reason why thyroxine is inactive when given by mouth is that it is too insoluble in the free state. It cannot be rendered inactive by digestion, since thyreoid extract, containing thyroxine in a combined and more soluble form, is obviously absorbable to a high degree. Since these facts have been realized attempts have been made to prepare thyroxine in a water-soluble form for use in therapeutics. Gaddum had noticed that 3:5 diiodothyronine exhibited a considerable degree of thyreoid-like activity when tested by the tadpole metamorphosis control for thyreoid effect, and A. B. Anderson, C. R. Harington and D. Murray Lyon decided to test its use clinically.[1] The compound is somewhat more soluble than thyroxine, and its acid and alkaline salts are still more soluble. The drug, as a disodium salt, was administered to six patients who had well established myxœdema, from whom all drugs were withdrawn and who were allowed to rest in bed until the basal metabolic rate had reached a constant level. The standard dose was 50 milligrammes a day. The drug was well tolerated, no patient showing any toxic effects whatever. One patient received 75 milligrammes a day without ill effect. The results were uniformly satisfactory, except in one instance, in which the drug was given in pill form. The time taken and the degree of restoration of the basal metabolic level were closely similar to results obtained as a rule by the daily injection of one milligramme of thyroxine. The usual loss of weight was considerable, but associated with slight elevation of the pulse frequency. There seems to be no reason to doubt, therefore, that 3:5 diiodothyronine acts as a true substitute for the thyreoid hormone. The authors state that the reason for the qualitative similarity between the actions of thyroxine and 3:5 diiodothyronine is not perfectly clear, but that probably the thyronine becomes converted into thyroxine itself, a change, they say, which requires only the easy introduction of the iodine atoms into the 3′:5′ positions. They remark that "3:5 diiodothyronine is a compound which is readily obtainable by a synthetic method in a state of purity", and that it is in fact "the penultimate product in the synthetic preparation of thyroxine". They admit that the standardization of thyreoid extract has recently been improved; but they point out that the accuracy of this standardization may still be regarded as doubtful.

It is stated that the qualities of stability, standardization and mathematically predictable effect of such a product may render it superior to thyreoid gland in the treatment of all disorders in which thyreoid is indicated. These advantages cannot be denied; and there has been abundant evidence of the confusion which has in the past surrounded the prescription of this hormone. The new pharmacopœia, however, has cleared away many of these disparities, and the freshness of dried thyreoid can now be relied upon when it is manufactured locally by dependable firms. The other probability is that the manufacture of 3:5 diiodothyronine will be undertaken under a trade name by some proprietary firm and that it will be sold at the high price that nowadays frequently results in the treatment's costing more than the consultation. These considerations, however, detract in no wise from the quality of a highly commendable corollary to Professor Harington's synthesis of thyroxine.

[1] *The Lancet*, November 11, 1933.

Abstracts from Current Medical Literature.

OPHTHAMOLOGY.

An Inexpensive Telescopic Spectacle.

H. EGGERS (*Archives of Ophthalmology*, October, 1933) has devised a simple arrangement of glasses which acts as a telescopic spectacle and costs 15 dollars, as against 50 dollars for the Zeiss pattern. Two ordinary spherical lenses, 42 millimetres in diameter, one of *plus* five diopters and the other of *minus* ten diopters, constitute the telescope. The planes of the lenses are separated by a distance of 9·2 centimetres. The convex lens is farthest from the eye, while the concave is directly in front of the eye. This combination gives a magnification of two for distance. The reading lens (*plus* eight diopters) is added to the front lens of the eye that is to be used for reading, as a hook-over attachment.

Evisceration.

G. P. GUIBOR (*Archives of Ophthalmology*, July, 1933) discusses the relative advantages of evisceration and enucleation of the eye. If simple evisceration is done, the cornea is retained as well as the sclera. A horizontal incision is made by transfixing the cornea with a von Graefe knife from limbus to limbus and cutting outwards. The contents are then removed with a spoon and the sclera wiped clean with swabs. The operation is extremely simple and can usually be performed with a local anæsthetic. It has obvious advantages; it leaves a better stump and causes less mental shock to the patient. Furthermore, the subdural space is not opened; hence it is the operation of choice in panophthalmitis. One disadvantage is the larger reaction and the greater chemosis than that occurring after enucleation; this suggests that enucleation is preferable for old people. Enucleation is also contraindicated when tumour is suspected, when a specimen for diagnosis is required, and when sympathetic ophthalmia or even the risk of it is present.

Pituitary Tumours.

AFTER a partial review of the literature, C. C. Hare and C. G. Dyke (*Archives of Ophthalmology*, August, 1933) conclude that many writers favour irradiation as the first method to be tried in the treatment of adenomata of the pituitary gland. The tumour of the acromegalic type of patient (acidophilic chromophile adenoma) responds to irradiation better than that of the adiposogenital type (chromophilic adenoma) and improvement in vision *et cetera* may be maintained for one to five years or longer. If the visual powers continue to diminish, an operation is indicated. The authors describe and relate their experience with twenty patients. As to technique: both temporal regions and forehead are irradiated through portals ten centimetres square. Treatments are given every second day and are alternated from side to side, one-half of an erythema dose being given at each sitting. One patient, a man, aged thirty-two years, seems to be completely cured. In fifteen cases the general symptoms, headache, drowsiness and muscular weakness, were partially or completely alleviated. In five there was a further loss of vision. In two of these operation was done later. Although satisfactory results may often be obtained by X ray treatment, the percentage of patients to whom vision was completely restored was lower than it was in a series of patients operated upon.

Cataract.

J. GREEN AND C. BEISBARTH (*American Journal of Ophthalmology*, July, 1933) refer to the frequently unsatisfactory results of repeated discissions for juvenile cataract. Barkan observed two cases of retinal detachment in adult life that had resulted from discissions in childhood. Barkan describes an open operation for these cases. He insists upon maximum dilatation of the pupil by the subconjunctival injection of a one in one thousand solution of adrenalin chloride, and an oblique corneal incision one or two millimetres from the limbus. The pupil will usually remain dilated during the manipulations with cystotome, capsule forceps, scissors and irrrigation cannula. The authors describe six cases in which they operated in this manner.

Herpes Zoster Ophthalmicus.

J. H. DOGGART (*The British Journal of Ophthalmology*, September, 1933) gives a careful description of the epidemic form of *herpes zoster ophthalmicus*. Most of the patients are middle-aged or elderly. After a variable degree of constitutional disturbance, severe neuralgic pain sets in over the areas concerned, lasting very often many weeks. The skin eruption soon appears and the extent is proportional to the severity of the attack. Of the three main branches of the ophthalmic nerve, lachrymal, frontal and naso-ciliary, the frontal never escapes; when the other two are involved, the rash appears on the skin of the eyelids and side of the nose. Hutchinson's dictum that ocular complications do not occur unless the eruption appears on the side or the tip of the nose, though a rough and ready guide, is not universally true. Whenever the state of the eyelids has allowed close inspection of the eye, there is always epithelial œdema over the whole surface of the cornea, whether or not the patients were destined for the more serious corneal involvement. The ocular complications may arise early; but sometimes they do not occur till after the rash has subsided, when they are more correctly described as sequelæ. They are keratitis, irido-cyclitis, ocular palsies and optic neuritis. Keratitis affects the *substantia propria*, but scarcely ever produces ulceration. There are seen irregularly shaped opacities at various depths, with general haziness. Folding of Descemet's membrane can often be detected. Under a mydriatic the keratitis may settle down in a fortnight, but more often drags on for weeks or months. Probably the iris never remains perfectly normal during an attack. Ocular palsies involve the third, fourth and sixth cranial nerves; as a rule recovery from them is good.

Diabetes Mellitus.

W. A. GRAY (*The British Journal of Ophthalmology*, October, 1933) has assessed the incidence of retinitis, vitreous hæmorrhage and ocular palsies in 500 patients with *diabetes mellitus*. Of these patients, 228 were examined for arteriosclerosis of the retinal vessels and for cataract. The condition and reactions of the pupil were noted in seven cases of coma, in 24 cases of hypoglycæmia (after overdose of insulin), and in 20 cases of *diabetes mellitus* with marked acidosis. In addition to this, 80 patients were examined, under full mydriasis, with the Gullstrand slit-lamp to decide whether cataract and early lens changes were more common in diabetics than in healthy persons. Thus the total number of diabetics examined was 583, and it was found that true diabetic cataract occurred in only two instances. The author found retinal sclerosis to be more common in the older patients; he found also that there was a definite relationship between arteriosclerosis of the retina and other parts of the body, and concluded that even slight evidence of vessel change in the retina was important, as indicating probably more pronounced changes elsewhere. The author also concludes that a characteristic form of retinitis often exists in diabetes; it is first manifested by the appearance in the central part of the retina of whitish-yellow spots. The small amount of sclerosis of the retinal vessels in diabetes is an important point of differentiation from retinitis of other origin. In diabetes retinal hæmorrhages may be due to toxin causing secondary changes in the vessels or else to hypertension. The size of the pupil in diabetic coma is not characteristic and in hypoglycæmia no change in the pupil could be noted. In coma, however, a reduction in intraocular tension frequently occurs, the cause of which seems to lie in disturbed molecular concentrations of the tissue fluids and blood following the acidosis and dehydration. Vitreous hæmorrhage is common in diabetics with arteriosclerosis and is constantly associated with an infective focus somewhere in the body; the amount of hæmorrhage may be dependent on the state of the vitreous humour and the condition of the retinal vessels. Moreover, hypertension in the retinal

vessels is usually found in cases of vitreous hæmorrhage. The author remarks that ophthalmoscopic examination in *diabetes mellitus* is useful in determining the general condition of the patient, in detecting arteriosclerosis, and in diagnosing coma. In spite of treatment, retinitis frequently progresses and may often cause blindness. There would appear to be some relation between progressive deterioration of vision and the presence of sepsis, possibly due to the ensuing progression of the diabetes.

OTO-RHINO-LARYNGOLOGY.

Mucocele as a Cause of Proptosis.

WILLIAM B. CHAMBERLIN AND THAYER L. PARRY (*Archives of Otolaryngology*, August, 1933) report six cases of mucocele as a cause of proptosis, and conclude that displacement of the eyeball downward and forward occurs as a result of erosion of the orbital roof and pressure from a mucocele of the frontal sinus or of the ethmoid sinus. Symptoms referable to the eye vary according to the extent of the orbital involvement. Treatment should consist in external operation with removal of the mucocele together with all sinus mucosa and necrotic bone. The establishment of a large opening into the nasal cavity is most important. As a rule the swelling rapidly disappears after operation, and the eye returns to its normal position. Ocular symptoms caused by the orbital involvement subside rapidly after the operation. The surgical scar is usually inconspicuous, and practically no external deformity results.

Malignant Disease of the Bronchus.

F. C. ORMEROD (*The Journal of Laryngology and Otology*, November, 1933), in a paper dealing with malignant disease of the bronchus, discusses a series of 27 cases. He observes that the majority of patients are males. He describes the clinical signs and the radiographic appearances before and after injection of lipiodol. In every case the provisional diagnosis was made by the bronchoscope and the final diagnosis confirmed by biopsy. He considers that the number of cases of the disease correctly diagnosed during life has greatly increased. This is due to a large extent to the improved methods of examination, such as radiography and bronchoscopy, and also because physicians are now familiar with cancer of the lung. The squamous-celled type of cancerous growth tends to occur in older people, the columnar and ovoid types being found among younger persons. Metastases occur commonly in the mediastinal glands, from which the tumour may invade the hilum of the opposite lung. They also occur commonly in the suprarenal gland, in the liver, pancreas, brain, and almost any organ. In some cases aspiration of fragments of the growth into the bronchus of the opposite lung may give rise to secondary deposits. Progress of the tumour can be traced through the lung tissue to the pleura, and then the whole pleural surface may become studded with secondary deposits or converted into a continuous sheet of carcinoma enveloping the lung. The results of treatment are not very satisfactory, owing to the advanced stage in which most cases are seen. Treatment by radon has been encouraging, and radiotherapy is beginning to give some hope.

Bronchial Asthma.

W. P. WARNER AND G. MCGREGOR (*The Journal of Laryngology and Otology*, September, 1933) attempt to evaluate the effect of radical antral surgery on bronchitic asthma or chronic bronchitis. Thirty-one patients suffering from bronchitic asthma were treated by radical antral operation, which included the removal of the thickened muco-periosteum. They were followed closely for six months to two and a half years, and in two cases only were results decidedly favourable and permanent to the time of writing. All patients had a period of freedom from asthma following the operation, but relapsed later. The longest period was twenty-seven months, the shortest two weeks, and the average in all cases four months. The authors conclude that these results are so poor that radical antral surgery undertaken for the relief of bronchitic asthma should not be hastily recommended. In those patients who apparently benefited for a long time there were no peculiarities that would enable the surgeon to decide for certain which ones to operate on. They had had asthma for a relatively short time and had a markedly thickened muco-periosteum. Results of treatment of asthma by operative procedures on the nose should not be given until the patients have been observed for a long time after the operation. All patients but one in the authors' series were relieved from their asthma for two weeks following the operation. This fact led to the performance of operation as a life-saving measure in one instance. Five patients suffering from chronic bronchitis were treated by radical removal of thickened muco-periosteum and were observed for a period of two years. No benefit was seen to be obtained as a result of the operation.

Objective Tinnitus Aurium.

SAMUEL IGLAUER (*Archives of Otolaryngology*, August, 1933) discusses objective *tinnitus aurium* and reports four cases. He points out that objective *tinnitus aurium* originates in one of two ways: it may be caused by spasmodic, rhythmic contractions of the muscles related to the Eustachian tube, or the sounds may be of vascular origin. In the author's four cases the sounds were of vascular origin, and, excepting possibly in one case, seemed to originate in the region of the jugular bulb on the affected side. The cause of the tinnitus could not be definitely determined, except in one case, in which the murmurs were coincidental with pregnancy. In all four cases the tinnitus disappeared when the head was rotated in a certain direction, producing torsion of the neck. Some of the conditions affecting venous pressure in the head are discussed, with special reference to the effect produced by torsion of the neck. Ligation of the internal jugular vein on the affected side is proposed for the treatment in properly selected intractable cases.

Granulomatous Ulceration of the Nose.

J. P. STEWART (*The Journal of Laryngology and Otology*, October, 1933), in a paper entitled "Progressive Lethal Granulomatous Ulceration of the Nose", describes a disease to which no definite name can be given and of which the cause is very obscure. Ten cases are reviewed. The disease is practically confined to the male sex, the ratio being nine males to one female. Eight of the ten cases occurred between the ages of twenty-eight and forty-two years. The pathological basis of the disease is unknown. From the clinical and microscopical appearances the author concludes that the disease is not a tumour, but that it is essentially pyogenic—a chronic inflammatory process. Malignant granuloma is an unjustifiable designation. He finds no connexion between this disease and Hodgkin's lymphogranuloma. The disease is not one of formation, but of destruction. The presence of granulation tissue may justify the term "progressive granulomatous ulceration". The clinical picture is one of progressive destruction of the nose, face and pharynx. The disease is characterized by a mild leucocytosis (14,800) or a leucopenia (2,200), with the white blood cells in their normal proportions. There are prolonged and hectic fever, and frequent and severe hæmorrhages. The duration of the illness is from one to two years. The most marked feature is the complete absence of resistance of the patient to the infection. The disease must be differentiated from ulceration in the nose due to such diseases as syphilis, tuberculosis, malignancy, granulopenia, mycosis, myiasis, frambœsia, leprosy, rhinoscleroma, leishmaniasis, and trophic post-encephalitic ulceration. In six of the seven cases, when bacteriological findings were given, the presence of a streptococcus in combination with a staphylococcus was reported. As regards treatment, local applications proved unavailing. Radium treatment was employed in two cases with indefinite results; but deep radiotherapy promised more success and deserves further trial. Eight patients died from the direct effects of the disease. One survived for four months after local cure before succumbing to generalized *sarcomatosis cutis*, and one died from atypical "miner's phthisis" four years after recovery from the local affection.

Special Articles on Treatment.

(Contributed by request.)

XXV.

THE TREATMENT OF PERIPHERAL NEURITIS.

PERIPHERAL neuritis and multiple neuritis are alternative but vague diagnostic terms embracing various maladies which produce symptoms representing disturbances in the function of somatic nerves.

A typical patient experiences tingling and numb sensations and paralyses which commence symmetrically in the extremities of the limbs and extend centripetally. If anæsthesia develops, it is of the glove-and-stocking type. Paralysed muscles exhibit the reaction of degeneration, if the paralysis is not a transitory phenomenon. Anatomical lesions usually are present in the motor and sensory nerves, and at first these lesions are more marked peripherally than centrally. The cerebro-spinal fluid typically contains considerable protein but few cells.

A clinical picture of this kind is summarized well in Grainger Stewart's term "multiple symmetrical peripheral neuritis". But peripheral neuritis is not uncommonly asymmetrical. Also many authorities object to the word "peripheral", as the spinal nuclei and intraspinal and cerebral neurones are affected severely in many cases of multiple neuritis (compare, for example, the lesions underlying Korsakow's psychosis, the encephalopathies of lead, and complex conditions such as that termed meningo-encephalo-myelo-neuritis by Barker, Cross and Irwin).

Collier has reviewed the problem recently and prefers the title "peripheral neuritis". The peripheral neuritis of diphtheria, local tetanus, and Bell's facial palsy may not be "multiple". Collier draws the picture of a neurone of the peripheral nervous system protected against blood- and lymph-borne toxins by the myelin sheath of its axone, but readily permeable to toxins and virus infections by way of its naked peripheral endings and, to a less extent, central synapses. The importance of the peripheral port of entry, he considers, justifies the use of the term peripheral neuritis for the lesions produced in this characteristic manner.

Peripheral neuritis usually is distinguished from interstitial neuritis, the former representing a parenchymatous neuritis, or disease of the neurone, the latter an inflammatory infiltration of the interstitial tissue surrounding the axone or nerve ending, sciatica being a typical example. Collier has advanced the opinion that degeneration of a neuraxone cannot cause pain; that pain and tenderness of nerve trunks and muscles are the expression of interstitial infiltration irritating sensory nerve fibres or nerve endings; and, therefore, that peripheral neuritis is an interstitial as well as a parenchymatous neuritis as a rule. So a virus or toxin may produce a reaction in a tissue and also extend into the local nerve endings and set up a peripheral neuritis. On the other hand, the toxin or virus producing a peripheral neuritis may pass out through the nerve endings and set up an interstitial inflammation.

Epidemic forms of peripheral neuritis appear at times. A bilateral facial palsy or ophthalmoplegia is a common condition in such cases. The agency of a specific virus is suggested. Wilson and Bashford claimed to have isolated and cultured this virus and to have transmitted the disease to monkeys by inoculation. This work has not been confirmed. The mode of action of the specific virus of herpes, poliomyelitis, encephalitis and rabies has been studied in detail, and, by analogy, Collier has suggested that a specific virus of epidemic peripheral neuritis may infect a healthy person and penetrate the nervous system widely, but remain innocuous until cold or injury transforms the latent virus into an active pathological agent with local or general manifestations.

These preliminary remarks are intended to outline briefly in regard to the possible nature of the maladies which are included under the term peripheral neuritis.

The treatment of peripheral neuritis can be considered conveniently under the headings of specific and symptomatic measures.

Specific Treatment.

Specific treatment concerns therapeutic methods designed to remedy the cause or causes of the complaint.

The recognized causes of peripheral neuritis may be summarized as follows:

1. (?) A specific virus.

2. Toxins of bacterial infections—diphtheria, tetanus, subacute rheumatism, focal sepsis, and possibly any infectious disease.

3. Metabolic toxins of diabetes, beri-beri, severe anæmia, cachectic states, nephritis, and pregnancy.

4. Exogenous poisons, notably alcohol, lead, arsenic, bismuth, ergot, apiol, and immune serum.

A convalescent serum may prove to be of value in early cases of peripheral neuritis during an epidemic, in view of the possibility of the presence of a specific virus.

Antidiphtheritic serum will not cure a diphtheritic paralysis, but may help to limit its spread. The use of antiserum in the early stages of diphtheria is the most effective preventive of paralysis. The general public is apt to blame the antitoxic serum if paralysis appears. The serum is a possible cause of peripheral neuritis, but this risk is negligible.

A diagnosis of subacute rheumatism is an indication for the free use of salicylates reinforced possibly by the exhibition of iodides or protein shock.

Septic foci should be sought for and treated if discovered.

Any coexistent infectious disease will require appropriate treatment.

Diabetes is a common cause of neuritis which is usually interstitial in type. The urine should be tested in every case of neuritis.

Beri-beri is a typical polyneuritis for which vitamin *B*, is the specific remedy. Minor degrees of avitaminosis may be present in cachectic conditions, and the provision of a full supply of vitamin *B* is a wise precaution in the treatment of peripheral neuritis.

Mellanby has demonstrated that vitamin *A* prevents or mitigates the onset of combined sclerosis in pernicious anæmia and ergot poisoning. Whole liver is therefore more valuable in this respect than liver extract in the treatment of pernicious anæmia. Peripheral neuritis and combined sclerosis are analogous conditions. An abundance of vitamin *A*, as well as of vitamin *B*, is therefore a rational measure in the treatment of peripheral neuritis.

Alcohol, lead and arsenic are the most well known causes of peripheral neuritis. Arsenic was a demonstrable factor in the Manchester epidemic of 1900, but Collier considers that it was not the only cause. Sheldon, Doyle, and Osterberg have found arsenic in considerable quantities in the urine and hair of patients suffering from peripheral neuritis when the origin of the arsenic was quite unknown. Arsenical polyneuritis may follow medication. An acute multiple neuritis has been produced by an intramuscular injection of bismuth penetrating into a vein.

Triorthocresyl phosphate has been the cause of a recent epidemic of peripheral neuritis in America. This substance has the flavour of ginger and was used as a cordial. The same substance is present in apiol, and also in a popular abortifacient which led to an outbreak of polyneuritis on the Continent.

The specific treatment of peripheral neuritis originating from these poisonous substances lies in the prevention of further intoxication. Large doses of calcium help to fix lead in bony tissue, where it is comparatively harmless for the time. The elimination of the lead can be stimulated later by withholding calcium from the diet and producing a mild acidosis with large doses of ammonium chloride. Intravenous injection of sodium thiosulphate in the presence of acute poisoning by arsenic, bismuth, or any metallic poison may prevent the onset of peripheral neuritis.

Symptomatic Treatment.

General Treatment.

The presence of pyrexia demands rest in bed and the usual appropriate measures, preliminary purgation, light diet, abundance of fluid and a diaphoretic mixture.

Rest in bed is also necessary if muscle weakness is at all extensive. The myocardial weakness of diphtheria and beri-beri makes rest in bed imperative.

Analgesic drugs, hypnotics, and even morphine, may be necessary to relieve pain. The former should be used as sparingly as possible, and morphine only as a last resource. A useful prescription is a cachet containing 0·3 gramme (five grains) each of barbitone, phenacetin, and Dover's powder.

Cod liver oil, malt preparations, iron and bitter tonics may be indicated in the subacute and chronic stages of the disease.

Local Treatment.

Management of the Paralysed Muscles.—Paretic or paralysed muscles must be kept at rest by mechanical support in a position in which the muscle fibres are stretched as little as possible. A hook suspending the corner of the mouth to the ear of the same side is the most important item in the treatment of a facial paralysis. A cock-up splint in the presence of wrist-drop, and a right-angle splint or bed-boot for the prevention of foot-drop are most necessary. When opposing muscles are paralysed, rest in a mid-position is required, so that neither of the groups of muscles is stretched unduly.

Stimulating massage and the electrical stimulation of paralysed muscles must be avoided at first. When a motor nerve is divided cleanly, the muscles it supplies are in a state of fibrillary contraction for about ten days, during which time stimulation is harmful. When neuritis is the cause of the loss of function, rest must be more prolonged and stimulation withheld until the muscles are no longer tender when compressed.

Galvanism then is required to stimulate muscles which exhibit the reaction of degeneration. This must be carried out gently and rhythmically with the muscle in a relaxed posture, or more harm than good will result. Muscle excitation with the minimal amount of current is obtained if the indifferent electrode be placed over the muscle origin and the exciting electrode over the musculo-tendinous junction. Preliminary hot baths, or hot foments, and massage are advantageous. Faradism may be used to stimulate muscles which respond to this, but here again only gentle rhythmic contractions are of value.

Voluntary use of the muscles frequently returns before faradic excitability, so the patient should be encouraged to attempt voluntary movements of the paralysed parts from time to time. These attempts should be made with the limb held in such a position that the required movement shall be aided by gravity; for example, in the case of wrist-drop the hand should be supinated. When voluntary movements are established, graduated reeducational exercises should be prescribed.

A muscle which has been paralysed should not be permitted to bear postural strains and stresses until it is certain that recovery is sufficiently advanced to warrant this. The patient may be allowed to go about in the meantime with the aid of suitable orthopædic appliances.

The Treatment of Pain.—Local measures to combat the pain of neuritis in the acute stages are concerned with hot foments, kaolin cataplasms or radiant heat. A gentle exhibition of the galvanic or sinusoidal current without muscle stimulation may be useful. Otherwise the limbs should be wrapped in cotton wool.

Massage, stimulating liniments, and diathermy may be used in the subacute and chronic stages. Menthol and chloral hydrate in equal parts make a useful analgesic pigment. Blistering fluid may be used with discretion in resistant cases. An old-fashioned remedy consists in painting strong hydrochloric acid on the skin along the course of the nerve.

Pain may be most intractable and distressing.

Injections of several ounces of normal saline solution, with or without 0·5% "Novocain", or of one to five cubic centimetres of 1% aqueous solution of quinine and urea hydrochloride, may be made into a large nerve trunk or about a small one. During the temporary analgesia which results, forced movements of the limbs should be made, in order to stretch the nerve and attempt still further to break down perineural adhesions.

Similar injections may be made into persistently tender and painful areas which represent nerve terminals rather than nerve trunks.

The epidural injection of 40 cubic centimetres or more of 0·5% "Novocain" in normal saline solution into the sacral canal may be used in sciatic pain.

Injection of oxygen into the subcutaneous tissues of a painful area also has been recommended.

Injection of alcohol into peripheral nerve trunks or root ganglia represents a more radical measure. Alcohol should not be injected into the sciatic nerve.

Frankly surgical treatment may be tried. The nerve trunk may be exposed and stretched by the fingers or divided longitudinally or even transversely. Posterior roots have been divided, and even this radical measure does not always relieve pain. Stripping the adventitious coat from the main arteries of the limb has not been successful. Ablation of the sympathetic innervation has also been performed with the intention of increasing the blood supply and modifying the trophic lesions of a limb. Forced movements under an anæsthetic may be necessary to break down articular and periarticular adhesions which are the result of trophic disturbances.

Finally, a reference may be made to the group of painful conditions without obvious cause which are diagnosed commonly as neuritis. Many of these patients are suffering from subacute non-articular rheumatism affecting muscles and fibrous tissue rather than nerves, but the condition shades off into a true neuritis, so conforming to Collier's conception of the pathological basis of a neuritis. Some of these patients, however, are invalided as the result of habitual postural strain, in which case voluntary muscles are called upon to do work for which they are not adapted. This may be occupational, as in the interscapular pain of seamstresses, or due to a bad habit, as in the occipital and neck pain of round-shouldered people; it may be the result of a spinal curvature or be a reaction against some painful condition of the feet; flat-foot and metatarsalgia are painful conditions which may be of this type. The recognition of any such postural cause is of value, as suitable reeducational exercises may be curative.

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Lecturer in Materia Medica and Therapeutics in the University of Adelaide; Honorary Assistant Physician to the Adelaide Hospital.

British Medical Association News.

ANNUAL MEETING.

THE ANNUAL MEETING OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Medical Society Hall, East Melbourne, on December 6, 1933, DR. W. G. D. UPJOHN, the President, in the chair.

ELECTION OF OFFICE-BEARERS AND MEMBERS OF COUNCIL.

The President announced that the Council had elected the following office-bearers:

President: Dr. Gerald Weigall.
Vice-Presidents: Dr. Rupert Downes, Dr. Walter Summons.
Chairman of Council: Dr. J. Newman Morris.
Honorary Treasurer: Dr. C. H. Mollison.
Honorary Secretary: Dr. J. P. Major.
Honorary Librarian: Dr. W. G. D. Upjohn.

The President announced that the following had been elected members of the Council by the general body of the members: Professor R. Marshall Allan, Dr. H. C. Colville, Dr. John Dale, Dr. A. P. Derham, Dr. R. M. Downes, Dr. D. M. Embelton, Dr. Mark Gardner, Dr. J. S. Green, Dr. Victor Hurley, Dr. L. S. Latham, Dr. F. Kingsley Norris, Dr. H. Douglas Stephens, Dr. B. M. Sutherland, Dr. B. T. Zwar.

The President also announced that the following had been elected by the subdivisions: Dr. F. J. Bonnin, Dr. W. F. Brownell, Dr. J. A. Cahill, Dr. C. H. Dickson, Dr. R. L. Fulton, Dr. O. B. Goyen, Dr. J. L. M. Kneebone, Dr. J. P. Major, Dr. S. J. Newing, Dr. F. E. McAree, Dr. D. C. Pigdon, Dr. W. A. Spring, Dr. Walter Summons, Dr. A. R. Thorne, Dr. W. G. D. Upjohn, Dr. Gerald Weigall, Dr. J. F. Wilkinson.

The President announced that Dr. R. H. Fetherston, Dr. F. L. Davies, Dr. C. J. Mollison and Dr. J. Newman Morris were the *ex officio* members of the Council.

The representative of the Victorian Medical Women's Society was Dr. Constance Ellis.

The President announced that the following had been coopted as members of the Council: Dr. G. A. Birnie, Dr. David Roseby, Dr. John Shaw.

ANNUAL REPORT OF THE COUNCIL.

The annual report of the Council, having been circulated, was taken as read and adopted. The report is as follows:

The Council of the Branch and the Committee of the Society present the fifty-fourth annual report of the Branch and the seventy-eighth of the Society.

Election.

At the annual meeting, held last December, the following members of the Council and of the Committee were elected: Professor R. Marshall Allan, Dr. H. C. Colville, Dr. John Dale, Dr. A. P. Derham, Dr. R. M. Downes, Dr. D. M. Embelton, Dr. J. S. Green, Dr. T. E. V. Hurley, Dr. L. S. Latham, Dr. F. K. Norris, Dr. A. W. D. Robertson, Dr. H. D. Stephens, Dr. B. M. Sutherland, Dr. B. T. Zwar.

The following were elected to represent the subdivisions: Dr. F. J. Bonnin, Dr. W. F. Brownell, Dr. J. A. Cahill, Dr. C. H. Dickson, Dr. R. L. Fulton, Dr. W. H. Godby, Dr. G. H. Guthridge, Dr. J. Le M. Kneebone, Dr. P. V. Langmore, Dr. J. P. Major, Dr. F. E. McAree, Dr. D. C. Pigdon, Dr. W. A. Spring, Dr. Walter Summons, Dr. A. R. Thorne, Dr. W. G. D. Upjohn, Dr. Gerald Weigall, Dr. J. F. Wilkinson.

Dr. S. J. Newing was elected to represent the Western Suburbs Subdivision in place of Dr. G. H. Guthridge (resigned).

Dr. O'Donnell was elected to represent the Gippsland Subdivision in place of Dr. Langmore (resigned).

The Council, by virtue of its powers under Rule 8, coopted Dr. G. A. Birnie, Dr. Mark Gardner and Dr. D. Roseby; and by the same rule elected Dr. Constance Ellis, nominated by the Victorian Medical Women's Society. The four Trustees of the Medical Society of Victoria are members *ex officio*.

The Council elected the following office-bearers: President, Dr. W. G. D. Upjohn; Vice-Presidents, Dr. Gerald Weigall and Dr. Allen Robertson; Honorary Secretary, Dr. J. P. Major; Honorary Treasurer, Dr. C. H. Mollison; Honorary Librarian, Dr. W. G. D. Upjohn; and the Chairman of Council, Dr. J. Newman Morris.

Executive.—The President, with other office-bearers and the immediate Past-President, Dr. B. M. Sutherland, constituted the Executive.

Council Meetings.

There were twelve ordinary and four special meetings of the Council, at which the attendances were as follows:

Dr. Major	16	Dr. Derham	13
Dr. Morris	16	Dr. Latham	13
Dr. Norris	16	Dr. Roseby	13
Dr. Upjohn	16	Dr. Zwar	13
Dr. Hurley	15	Dr. Cahill[1]	12
Dr. Mollison	15	Dr. Fetherston	12
Dr. Sutherland	14	Dr. Gardner	12
Dr. Davies	14	Dr. Summons	12
Dr. Green	14	Dr. Weigall	12
Dr. Birnie	13	Dr. Ellis	11
Dr. Colville	13	Dr. Fulton	11
Dr. Embelton	13	Dr. McAree	11
Dr. Robertson[1]	11	Dr. Dickson	5
Dr. Stephens	11	Dr. Downes[1]	3
Dr. Wilkinson	11	Dr. Newing[2]	2
Professor Allan[1]	8	Dr. Guthridge[3]	1
Dr. Pigdon	8	Dr. Bonnin	0
Dr. Brownell	7	Dr. Kneebone	0
Dr. Dale	7	Dr. Langmore[3]	0
Dr. Thorne	7	Dr. Spring	0
Dr. O'Donnell[2 3]	6		

[1] Absent from the State.

The average attendance at each meeting of the Council was 25·25. The highest number present at any meeting was 32.

Appointment of Committees.

The following committees were appointed by the Council (the first-named member acted as convener of the committee):

Ethics.—Dr. Major, Dr. Davies, Dr. Downes, Dr. Fetherston, Dr. Latham, Dr. Pigdon, Dr. Zwar, Dr. Wilkinson and the Executive.

Finance, House and Library.—Dr. Mollison, Dr. Fetherston and Dr. Upjohn.

Legislative.—Dr. Colville, Professor Marshall Allan, Dr. Davies, Dr. Green, Dr. Guthridge, Dr. Latham, Dr. Morris, Dr. Norris, Dr. Roseby.

Organization.—Dr. Robertson, Dr. Brownell, Dr. Cahill, Dr. Birnie, Dr. Gardner, Dr. Green, Dr. Guthridge, Dr. McAree, Dr. Major, Dr. Pigdon, Dr. Roseby, Dr. Summons, Dr. Sutherland, Dr. Upjohn, Dr. Weigall, Dr. Wilkinson and representatives of country subdivisions.

Public Health.—Dr. Stephens, Professor Marshall Allan, Dr. Cahill, Dr. Dale, Dr. Derham, Dr. Ellis, Dr. Summons.

Public Questions.—Dr. Gardner, Dr. Brownell, Dr. Dale, Dr. Embelton, Dr. Norris, Dr. Roseby and Dr. Summons.

Services.—Dr. Dale, Dr. Derham, Dr. Downes, Dr. Fetherston, Dr. Green and Dr. McAree.

Science.—Dr. Hurley, Dr. Colville, Dr. Downes, Dr. Ellis, Dr. Norris and Dr. Stephens.

Hospital.—Dr. Zwar, Dr. Birnie, Dr. Gardner, Dr. Hurley, Dr. Latham, Dr. Morris, Dr. Wilkinson, Dr. Thorne and Professor Marshall Allan.

Standing Insurance.—Dr. Embelton, Dr. Davies, Dr. Hurley, Dr. McPhee, Dr. Mollison, Dr. Major.

Correspondence.—Dr. Major and Dr. Morris.

Special Committees.

Early Medical History.—Dr. G. T. Howard, Dr. Meyer, Dr. Hooper, Dr. Fetherston, Dr. Kenny, Dr. Norris, Dr. A. Jeffreys Wood, Dr. A. G. Black, Dr. W. R. Boyd.

Yallourn Committee.—Dr. Wilkinson, Dr. Morris, Dr. Davies, Dr. Sutherland, Dr. Zwar, Dr. Robertson, Dr. Major.

Appointments and Nominations.

Federal Council, 1933.—Dr. Davies and Dr. Morris. (They have been reelected for 1934.)

Annual Representative Meeting, Dublin.—Representative, Dr. J. R. Bell; delegates, Dr. J. T. Tait and Dr. R. Howden.

Bush Nursing Association.—Dr. Sutherland and Dr. Weigall.

City Electoral Roll.—Dr. Hurley, Dr. Major, Dr. Mollison.

Free Kindergarten Union.—Dr. Weigall.

Victorian Baby Health Centres' Association.—Dr. Derham.

Melbourne University Association.—Dr. Stephens.

Health Association of Australia.—Dr. Dale and Dr. Summons.

[1] Absent from the State.
[2] Elected during the year.
[3] Resigned during the year.

Victorian Institute of Hospital Almoners.—Dr. Morris.
Lord Mayor's Fund.—Dr. Morris.
Medical Advisory Committee, Education Department.—Dr. Zwar.
Victorian Council for Mental Hygiene.—Dr. Dale and Dr. Derham.
Melbourne Permanent Post-Graduate Committee.—Dr. Hurley, Dr. Major and Dr. Upjohn.
Big Brother Movement.—Dr. Weigall.
The Society for Health of Women and Children of Victoria.—Dr. B. L. Stanton.
Medical Officers' Relief Fund—Advisory Committee.—Dr. Mollison, Dr. Davies and Dr. Upjohn.
Nurses' Board.—Dr. R. W. Chambers.

Standing Appointments.

Trustees of the Medical Society of Victoria.—Dr. Davies, Dr. Fetherston, Dr. Mollison and Dr. Morris.
The Advisory Committee to the Charities Board.—Dr. Hurley, Dr. Latham, Dr. Morris, Dr. McPhee, Dr. Wilkinson and Dr. Zwar.
Central Council, British Medical Association.—Sir Thos. P. Dunhill.
Queen Memorial Infectious Diseases Hospital.—Dr. J. Newman Morris.
Victorian Correspondent, "The British Medical Journal".—Dr. A. P. Derham.
British Medical Agency Company of Victoria Proprietary, Limited.—Directors, Dr. Mollison (Chairman) and Dr. Fetherston; Managing Director, Mr. W. Ramsay.
British Medical Insurance Company of Victoria.—Directors, Dr. Mollison (Chairman), Dr. Fetherston, Dr. W. Kent Hughes and Dr. Morris; Secretary, Mr. H. M. Brindley.
Board of Australian Inland Mission.—Dr. J. W. Dunbar Hooper.

Membership Roll.

The number of members on the roll is 1,273, which is 66 less than that of last year. Fifty names were added (21 by election, 8 who had paid arrears, and 21 by transfer from other States). One hundred and sixteen were removed (14 by death, 18 by resignation, 25 by transfer to other States, and 59 who allowed their subscriptions to fall into arrears).

We have to record with regret the death of the following members and associate: Dr. H. A. Body, Dr. L. W. Craig, Dr. A. Curtis, Sir Geo. Cuscaden, Dr. U. A. Daly, Dr. R. J. Fullerton, Dr. C. R. Lease, Dr. T. G. Oliphant, Dr. Hilda Rennie, Dr. E. K. Rodda, Dr. R. Hamilton Russell, Dr. S. G. Strahan, Dr. W. H. Summons, Dr. T. R. H. Willis and Dr. Jas. F. Merrillees.

Ethics Committee.

The Ethics Committee met on nine occasions.

Permission was given to broadcast health talks through 3DB on conditions laid down in the ethical principles of the Branch. The manager was later informed that the subject of treatment was being broadcast contrary to the agreement. He promised that no future reference to treatment would take place.

It was resolved that permission to give public lectures or to broadcast medical subjects should not be given to members of the Branch unless application for such permission had been submitted to the Ethics Committee and confirmed by the Council.

The Ethics Committee and Council meet once a month; it is therefore necessary to give ample notice in making application for permission to lecture.

An unqualified practitioner was making use of a number of country broadcasting stations to advertise prescriptions, which compelled the pharmacists to stock a certain proprietary medicine. The Director of Wireless was interviewed and the information was forwarded to the Federal Council.

The Branch Council offered no objection to a medical practitioner complying with the request of the editor of "Who's Who in Australia" to supply biographical details.

A business house requested permission to engage a medical practitioner to lecture on "Diet in Relation to Health", but such permission was refused.

A proprietor of a school of physical culture was informed that there was nothing unethical in the proposal as submitted by him to have his clients medically examined at his rooms, the position of a client's own doctor being preserved and the fee being a matter of arrangement between client and doctor.

A country member who desired a list of specialists was advised to secure the annual reports of the public hospitals for such a list.

The Council did not approve of a directory of suburban medical practitioners which the Public Health Association of Australia proposed to issue in connexion with a health pamphlet.

Organization Committee.

The Organization Committee met on twelve occasions.

It gave to an insurance company its interpretation of a paragraph of Clause 1 in the Lodge Agreement. If a lodge member meets with an accident for which some third person may be liable, he, the member, must pay private fees unless he legally attempts to establish his claim for damages and fails. In this case he will be treated as an ordinary lodge patient.

The Friendly Societies' Association offered to pay a uniform rate of five shillings for an additional sickness certificate for a friendly society member who was an employee of the railways or other department of the State, when the conditions of his employment required such a certificate. The offer was accepted with the proviso that this payment should be made at the time of giving the certificate. This agreement will apply only to a member on the list of the doctor who supplies the certificate. Members are requested to conform to this arrangement.

A lodge patient has now been placed on the same basis as a private patient with regard to the payment of 2s. 6d. for bacteriological examinations by the university. If the practitioner clearly states on the history sheet that the patient is indigent or for some other reason unable to pay, payment will not be insisted on.

Members were advised of attempts being made to place lodge female members on the basis of that of the mixed lodges (I.O.R. and O.S.T.), which pay 16s. for town members. Female members in male lodges must pay the male rate. The female lodges pay 12s. for single females and 18s. for those with dependants.

The Council informed a friendly society that it did not agree to any variation in the Wasley Award and that it could not agree to a special rate for female and juvenile members.

In view of the proposals by grand lodges to extend the scope of specialist service to lodge members, a letter was sent to all the orders suggesting the formation of a panel of specialists whose qualifications were approved and who would be appointed by a board. The Sections were asked to prepare a scale of specialty fees. It is proposed that the specialist should see the lodge member only on the written recommendation of the lodge medical officer. Replies have not yet been received from the friendly societies.

An order which proposed to appoint eye, ear, nose and throat specialists was asked to divide the specialties into (*a*) eye, (*b*) ear, nose and throat, and to pay at the rate of 1s. per member *per annum* for each specialty until the proposed panel of specialists should be decided upon.

One order agreed that where a member's name had been inadvertently left off a medical officer's list, such medical officer would be entitled to payment in full for the whole period during which the member's name was so omitted; and that such payment would then safeguard the member's interests and entitle him, during such period, to the services ordinarily provided by the medical agreement.

Contracts with forest workers and with miners were agreed to. The remuneration was fixed at 6d. per week, to be deducted by employers from the weekly wages. The terms of the Wasley Award should be observed, and a

separate arrangement should be made for the supply of medicines.

No objections were offered to a medical practitioner charging 4s. 6d. for advice to members of the Pensioners' League on production of their membership cards.

A member was advised that he should charge 5s. per examination of each sustenance case who was injured and who was sent to him by a municipal council.

A suburban public assistance committee offered to remunerate the medical practitioner at 2s. per examination of sustenance cases brought together in groups of 10, 20 or 30, to suit the convenience of the examining medical practitioner. This offer was accepted. The Council requested the Minister of Labour to adopt this principle and pay a medical practitioner for such services out of sustenance funds. The Minister contended that he was unable to grant this request.

Medical practitioners in the country have often been called upon to attend gangs of relief workers. A letter was sent to the Government suggesting that dockets should be given to the men entitling them to medical service and that these should be redeemed by the Government at 2s. 6d. each. The matter is still under consideration.

In 1923 an arrangement was made with the Repatriation Department that widows of deceased soldiers, a list of whom was to be supplied, should be treated at lodge rates. Within the past few years it has been found that the names of widows of soldiers who have died since that date are being added to the list. At the instigation of the Branch, the Federal Council has resolved that no fresh names shall be added to the existing list. Members are requested to refrain from accepting additional members and to report whenever any such attempt is made.

The Council offered no objection to a member making a private contract with lodge limitations at four guineas per family, provided that payment was made in advance.

The Returned Sailors and Soldiers' Imperial League of Australia asked for an extension of the system of medical examination of the returned soldiers' children. Under the new arrangement the medical officer will work three hours of five mornings of the week, and for this he will receive £500 *per annum*. The Association was informed that this was to be regarded as a concession to returned soldiers and was not to be taken as a precedent.

Members practising in the Mallee were informed that the same arrangements as in the previous year would continue for payment of a percentage of their accounts out of the realization of the crops under lien to the Government.

The Closer Settlement Board stated that the claims of doctors for private hospital fees did not come within the terms of the agreement. Members were informed that they should submit their claims to the Farmers' Relief Board.

Members who had accounts for medical attendance against farmers working under protection certificates were advised to send them to the Secretary of the Farmers' Relief Board.

Dr. H. V. Francis resigned his appointment as Assistant Medical Officer at Yallourn. Dr. T. Dudley Hagger was appointed, after consultation between the Yallourn Medical and Hospital Society and a subcommittee of our Council. As senior medical officer, Dr. Andrew's period of engagement was extended for four years.

The question of a large influx of doctors expelled from Germany has been under consideration. After one year's study in Great Britain these could gain a qualification registrable in Victoria. This matter has been referred to the Federal Council.

The former resolution of the Council with regard to the charge for cremation certificates was again considered on a letter from the Secretary of the New Melbourne General Cemetery at Fawkner. It was resolved that in future the attending medical practitioner and the medical officer of health should each be entitled to charge up to two guineas for each certificate.

Hospital Committee.

The Hospital Committee met seven times.

Members were advised that before entering into any definite arrangements altering conditions of medical practice, such as the initiation of contributory schemes, the appointment of honorary medical officers to public hospitals, the establishment of community hospitals *et cetera*, such suggested arrangements should first be submitted to the Council for consideration and approval.

It was resolved that it was necessary that regular meetings of the honorary medical staffs of public hospitals should be held and that at these meetings no lay person should have the right to be present. This resolution was sent to the chairman of the staff of each public hospital.

Instructions have been issued by the Charities Board providing for the transference of patients from a public bed to a bed in an intermediate ward in cases where the patient is able to meet the cost of intermediate or private accommodation and medical attendant's fees.

Members were advised to make a claim against the estate of a patient in a public hospital who was afterwards reclassified as intermediate. The question of accommodation of intermediate and private patients in public hospitals is to be brought under the notice of the Charities Board.

In a country town the municipal council contracted with the local public hospital to pay for treatment of infectious disease cases sent into hospital. The honorary medical officers of the hospital submitted an account to the hospital, which refused to pay; the honorary medical officers thereupon resigned. Our solicitor advised that the medical officers had no claim against the committee of the hospital. He advised that in future medical practitioners, before accepting appointment as honorary medical officers, should stipulate for some scale of payment for attendance on infectious patients admitted under agreement with municipalities. In connexion with each claim made for payment the patients must have been ordered into hospital by a medical officer of health.

In a country hospital, which was also a community hospital, an honorary medical officer treated a private patient and received private fees. The patient died and the medical practitioner gave evidence at the inquest. The Crown Law Department ruled that as the medical officer was receiving an honorarium of £25 *per annum*, he was "a salaried medical officer" and could not claim a fee as a medical witness. The disability can only be rectified by an amendment of the *Coroners Act* 1928.

The Charities Board agreed that the chief executive officer of a public hospital who is responsible for managerial work should be designated "secretary and manager", and that the chief medical officer should be styled "medical superintendent". The Board has brought the matter before the institutions concerned.

The resolutions with regard to hospital policy passed at a delegates' meeting held last November were adopted by the Council and were issued to members.

The regulations under the *Hospitals and Charities Act* were considered and amendments proposed. These will be brought before the Charities Board.

The resolution of the Council in 1929 in respect of paying beds in public hospitals was amended and is now referred to the annual meeting of the Branch for confirmation. A copy of the resolutions is enclosed with this report.

Dr. Hurley and Dr. Embelton were appointed delegates of the Council on the Advisory Committee to confer with a subcommittee of the Cabinet to advise on hospital matters.

A question was asked by the Hospital Medical Superintendents' Association as to the legal right of parents, insurance companies and others to inspect hospital records. Advice was received from the public hospitals in this and adjacent States and the Association was informed that the Council recommended the principle that the consent of the patient or of his or her representative, and in the case of children, of the parents, representatives or guardians, should be obtained before access to case records is granted. The matter is still under consideration.

Standing Insurance Committee.

Alone and with members of the Executive and Hospital Committee, the Standing Insurance Committee during the year considered three contributory schemes, namely, The Lord Mayor's Fund Voluntary Contributory Scheme for Hospital Maintenance, The Colonial Mutual Life Assurance Society's scheme for Medical and Hospital Services, and an amended scheme submitted by the Branch to the Premier.

The Lord Mayor's Fund scheme, which is now being promulgated, was disapproved after protracted negotiations. Under the scheme a contribution of a penny in the pound of wages gives entitlement to a cash benefit of five shillings per day for a maximum period of twenty-one days to the contributor and his dependants towards the cost of maintenance in hospital; membership is limited to wage-earners with incomes not exceeding £390 *per annum*; no provision is made for medical benefit; and the management of the scheme is vested in a committee appointed from the Council of the Lord Mayor's Fund. The grounds for disapproval were that a contribution of one penny in the pound of wages had no actuarial relation to the cost of hospital needs of a contributor and his dependants; that the benefit of 5s. per day would not provide the assistance necessary to obviate a claim on the facilities provided by the community for the indigent; that membership should not be confined to wage-earners; that if the scheme implied a right to public hospital treatment, as actually it would, the income limit of £390 was too high; and, most important of all, that the management of the scheme should not be vested in a charitable organization, for the reason that a charitable organization was not responsible for organizing the hospitalization of the community.

The Colonial Mutual Life Assurance Society's scheme was given approval after careful consideration. This scheme conformed with the Branch policy in that its management was dissociated from charity or charity organizations; it provided for medical and hospital benefits, and there was an undertaking on the part of the management that surpluses would be applied for the benefit of policy holders. The benefit obligations, moreover, were definitely and contractually undertaken by a society of unquestionable financial stability and, therefore, the benefits were assured to policy holders. The scheme, it is admitted, will not achieve all that the profession would desire, but, being based upon sound principles, it can be regarded as a step in the right direction.

The scheme submitted to the Premier for Cabinet consideration has for its object control of contributory schemes by a properly constituted body, and that free medical service of the profession shall not be available to contributors, employees or employers unless they are properly certified as being persons whose circumstances justify their receiving free service.

It is confidently hoped that the present Parliament will deal with the hospital position in such a manner that this important branch of the social services will be placed on a more satisfactory footing.

Public Questions Committee.

The Public Questions Committee met on five occasions.

The health authorities are of the opinion that the first part of Section 123 of the *Health Act*, referring to the notification of infectious diseases, will be complied with if the practitioner notifies the council of the municipal district, giving all particulars, and, if the patient is a minor, also informs the head of the household where the patient lives. It is the responsibility of the local authorities to take any necessary action relating to premises where the patient works or where the patient, if not a minor, is lodging.

The Public Health Department was advised that the Council was of opinion that the pathological investigation of notifiable infectious diseases, being a matter of public health, should be a charge upon Government finances.

The Council approved of the Branch associating itself with the National Broadcasting Commission in a series of broadcast talks on medical matters. A deputation was arranged with the manager of 3LO, who agreed with the conditions laid down. The matter is still under consideration.

The principle of post-graduate training of nurses was approved, and two representatives were appointed to attend meetings of the proposed College of Nursing so that the Council might be informed of the progress of the movement.

The Council assisted in the Health Week movement on condition that it was undertaken by the Health Association, as on previous occasions—by newspaper articles, broadcast talks, public lectures in halls and factories; and that the local medical officers of health be asked to take a leading part in the local arrangements; that undue publicity should be avoided and that medical aspects should be kept distinct from physical culture propaganda.

Legislative Committee.

The Legislative Committee met eight times.

Much consideration has been given to the classification of workers' compensation cases, whether indigent or not, as paying patients. It is proposed to approach the Government with a view to placing medical practitioners in as favourable position as in other States.

Under a recent amendment of the *Medical Act* candidates for registration must present their diplomas one month before registration. This might cause hardship to recent graduates, who would be unable to register for several weeks after graduation. The matter has been referred to the Council of the University for consideration.

Representations have been again made to the Chief Secretary to include among the amendments of the *Lunacy Act* now before Parliament provision for the protection of medical practitioners who in good faith give medical certificates but may, under the present Act, be liable for heavy expenses in defending any action that may be brought against them.

As a doubt existed among members as to whether they should attend a court on receiving a subpœna or as to what fee they should ask as a witness and as to the court procedure, an authoritative statement approved by our solicitor was issued to members.

After considerable negotiations with the Council of the Association in London permission was granted to form a Branch Convocation, in which the general control and direction of the policy and affairs of the Branch should be vested. The rules of convocation are being submitted to the annual meeting in December for confirmation. A copy is enclosed herewith.

A conference was held with representatives of the Pharmacy Board on a proposed amendment of the *Poisons Act*. The Council expressed itself in sympathy with the desire of the Board to obtain legislation designed to control drug addiction. The Dangerous Drugs Regulations, with an additional clause safeguarding medical practitioners, were approved; and the Board was informed.

Amendment of Rules.—The rule as to subscription was amended to provide that if a member's subscription for the preceding year is not paid on or before June 30 following, he ceases to be a member from that day. If he pays the overdue subscription by the following December 31, he can be restored to membership without election. The year and a half's subscription due from him when membership ceases must be paid before reelection or reinstatement can be effected.

Overdue Subscriptions.—It has been resolved by the Home Association to reduce the six months' grace previously allowed members to three months. If the subscription of a member for 1933 is not received in London by March 31, 1934, his *British Medical Journal* will be stopped. This new arrangement will necessitate the payment of overdue subscriptions to the Branch before January 31; otherwise his *British Medical Journal* will be stopped. THE MEDICAL JOURNAL OF AUSTRALIA is stopped if the subscription is not paid by December 31.

Finance, House and Library Committee.

The balance sheet for the year will be presented at the monthly meeting in February.

The Committee again reports a further increase in the use of the library by members of the Association. Since the last report 1,262 volumes have been borrowed, an increase above last year of 52 volumes.

Through the grant from the British Medical Insurance Company of Victoria made in 1931, it has been possible to continue purchasing the latest and most valuable publications in the various branches of medical literature.

By purchase and donations 102 new books have been added to the library in the past twelve months. *The Archives of Neurology and Psychiatry* and the *Journal of Pædiatrics*, two journals not previously received, are now available to our members.

We have to thank the following for books and journals received from them during the year: Dr. John Dale, Dr. Marcel Crivelli, Dr. Lionel Hood, Dr. W. Kent Hughes, Dr. Harold J. Moore, the Editor of THE MEDICAL JOURNAL OF AUSTRALIA, The University of Wellington, The Association of American Physicians, Philadelphia, Pennsylvania University, the Library of the Surgeon-General's Office, United States Army, the Ophthalmic Section and Dr. Graham Butler. Nine books of historical interest were presented by the British Medical Association. These books originally came from the library at Worcester founded by Sir Charles Hastings, himself the founder of the British Medical Association.

We have to acknowledge also the gift of a number of publications concerned with the centenary celebrations of the British Medical Association in England in 1932. These were given by Dr. Newman Morris, to whom we express our thanks.

Mr. Victor Hurley presented a Union Jack and an Australian flag to be used on ceremonial occasions.

An enlarged photograph of the late Dr. A. V. M. Anderson has been obtained and will be presented at the annual meeting.

The painting in oil of Dr. C. H. Mollison, subscribed for last year, was hung in the Medical Society Hall and the replica was presented to Mrs. Mollison.

Sir James Barrett presented a replica of the memorial to Sir Andrew Balfour. Dr. Mollison presented an old Edinburgh medical diploma and an old testimonial of historical interest.

Science Committee.

The Science Committee met four times and arranged the syllabus for the year, which consisted of ten monthly meetings, three Branch country meetings, two special meetings, seven clinical meetings and eleven post-graduate lectures. The following were the subjects dealt with:

February.—Dr. H. Pern: "The Treatment of Arthritis Deformans."

March (in conjunction with the Ear, Nose and Throat Section).—Dr. Clive Eadie: "Nasal Sinusitis in Relation to General Medicine."

April.—Dr. Thos. Cherry: "Recent Work on the Causation of Cancer."

May (in conjunction with the Gynæcological and Obstetrical Section).—Dr. John S. Green: "Contracted Pelvis."

June.—Dr. J. B. Colquhoun: "Tuberculosis of the Spine."

July.—Dr. Alfred J. Trinca: "The Abuse of the Drainage Tube in the Treatment of Peritonitis."

August.—Dr. Ewen Downie: "Diabetes in Childhood."

September.—Dr. Keith Hallam and Dr. Douglas Thomas: "The Correlation of Clinical and Radiological Findings in Pulmonary Disease."

October.—Anatomy Department, University: Demonstrations.

November.—Dr. Fay Maclure: "Restoration of Facial Deformities."

Branch Meetings in the Country.

May 20.—Goulburn Subdivision, at Mooroopna—

Dr. Leslie Hurley: "Some Remarks on Diagnosis and Treatment."

Dr. S. F. Sutherland: "Hyoscine in Labour."

July 22.—South-Western Subdivision, at Warrnambool—

Dr. S. C. Fitzpatrick: "Tubal Block."

Dr. Fay Maclure: "Rest and Movement in Joint Injuries."

October 21.—North-Eastern Subdivision, at Wangaratta—

Dr. G. V. Davies: "Pneumococcal Vaccine in the Treatment of Pneumonia."

Dr. Thos. King: "Treatment of Intracapsular Fracture of the Neck of the Femur."

Clinical Meetings.

April.—Austin Hospital.

May.—Melbourne Hospital.

July.—Women's Hospital.

August.—Saint Vincent's Hospital.

September.—Alfred Hospital.

October.—Eye and Ear Hospital.

November.—Children's Hospital—the Pædiatric Society.

Post-Graduate Lectures.

A series of eleven afternoon lectures was arranged, which were all well attended:

May 19.—"Treatment of Carbuncles, Cellulitis, Gangrene *et cetera*", Mr. W. A. Hailes.

May 26.—"Treatment of Some Common Sprains and Minor Injuries", Mr. Thos. King.

June 2.—"Epigastric Pain of Thoracic Origin", Dr. J. G. Hayden.

June 9.—"Cysts and Tumours of the Hands and Fingers: Their Diagnosis and Treatment", Mr. Edgar S. J. King.

June 16.—"Some Common Infections of the Skin", Dr. Keith G. Colquhoun.

June 23.—"Minor Surgery of the Rectum and Anus", Mr. C. H. Osborn.

June 30.—"Types of Hypertension and Management", Dr. M. D. Silberberg.

July 7.—"The Diagnosis and Treatment of Anæmias", Dr. Keith D. Fairley.

July 14.—"Hypnotics and Their Use", Dr. S. O. Cowen.

July 21.—"Ocular Conditions Causing Headache", Dr. Mark Gardner.

July 28.—Demonstration: Schick Test and Immunization against Diphtheria, Dr. Hilda Bull and Dr. John Dale.

Special Meetings.

1. April 21, to form a general committee in connexion with the annual meeting of the British Medical Association in Melbourne, 1935.

2. July 13, Mr. A. G. Stephenson, F.R.I.B.A.: "Hospital Administration Abroad."

Victorian Medical Benevolent Association.

For more than forty years the Victorian Medical Benevolent Association has carried on a quiet work on behalf of necessitous members of the profession and those dependent on them.

At one time there was a considerable number of subscribers of £1 1s. *per annum*. From their subscriptions and interest thereon a capital sum of nearly £7,000 has been accumulated and is invested in Commonwealth inscribed stock. For some years, however, the membership has declined till now it comprises only the officers and the members of the Committee of the Association.

The membership fee has been reduced to 5s. *per annum* and it is believed that few members of the profession will begrudge that small sum to assist the Association to respond to calls, which are likely to become more numerous and urgent than they have been in the past.

Grants are made for specific objects; and aged and needy members of the profession have been helped by allowances which have greatly cheered them and have removed the sting of poverty.

This benevolence is administered in a delicate and sympathetic way, but at the same time the utmost care is exercised to help those who are most deserving and to avoid imposition.

EDWARD L. GAULT,
Honorary Secretary.

The Council resolved to submit with the account forms sent out early next year a statement of the objects of this association and to ask members to include with their subscriptions five shillings.

Social.

Members of the Federal Committee and of the Australasian Medical Publishing Company were entertained at dinner on Monday, March 26.

The recent graduates in medicine of the Melbourne University were welcomed into the profession at afternoon tea at the Hotel Windsor on the afternoon of their registration, Wednesday, September 20.

Congratulations were sent to Dr. T. E. Lowe on his being awarded the British Medical Association Prize for the best clinical paper presented by recent graduates of universities of the Empire outside the British Isles. The prize was presented to him at the monthly meeting of the Branch in August.

Congratulations were sent to Sir Thomas Dunhill on the distinction conferred upon him by His Majesty the King. A letter of thanks was also sent to him for his services on the Central Council, on which he is our representative.

General.

Medical Expenses.—In a claim for compensation there was included medical expenses. The Railway Department paid over an amount of compensation agreed upon, but the patient, on the advice of his solicitor, paid over a much smaller amount to his medical practitioner. A conference was held with the Law Institute to discuss the principle and other matters relating to the two professions. At this conference some legal principles were enunciated. As these might be of interest to members of the medical profession, two of them are here stated. The others may at any time be inspected in the office.

1. Where a solicitor engages a doctor and does not disclose the name of his client, the doctor may hold liable either the solicitor or the undisclosed client (when ascertained) unless the solicitor expressly stipulates that he is acting as agent only.

2. Where the doctor is engaged by the client of a solicitor who formulates a claim for damage including medical expenses, the solicitor is not liable to account to the doctor for medical expenses received. It is the solicitor's duty to pay over the amount to the client and the doctor's remedy is against the client.

Emergency Call by Police.—The Chief Commissioner of Police has agreed to the principle that the Police Department will pay for the first visit of a medical practitioner if his aid was sought by the police.

Annual Report.—The Medical Secretary of the British Medical Association, London, congratulated the Victorian Branch on being at the head of the list as regards the number of scientific and other meetings during the year 1932.

Australasian Medical Congress (British Medical Association) will be held in Hobart in January, 1934. Dr. J. P. Major was appointed State Honorary Secretary.

Annual Meeting, British Medical Association, 1935.—The annual meeting of the Association will be held in Victoria in September, 1935. It is expected that a large body of overseas visitors and officials of the Home Association will be present. Dr. Major has been appointed Local General Secretary.

This meeting will be a unique event in the history of the Australian Branches, as, with the exception of Canada, no annual meeting has been held outside of Great Britain. The expense will be fairly heavy and the overseas and interstate visitors must be suitably entertained; members of the Victorian Branch are asked, therefore, to contribute liberally to the Fund that is being raised to conduct the meeting.

The E. H. Embley Memorial Lecture.—This will be continued as a triennial one. Provided that a suitable lecturer should be attending the annual meeting, 1935, he will be invited to deliver the second lecture.

The Embley Memorial Medal in Anæsthetics.—The Embley Memorial Medal in Anæsthetics, for annual competition among medical students, was awarded for 1933 to Alan Harry Penington.

Aerial Medical Service.—For the past five years the Aerial Medical Service has been conducted by the Australian Inland Mission of the Presbyterian Church, with a centre at Cloncurry. It is now proposed to establish several such areas and to form a national and undenominational service.

Our representative on the Board of Australian Inland Mission is Dr. J. W. Dunbar Hooper.

Federal Council.

The Federal Committee, which was a consultative body only, met in Melbourne for the last time on March 6. The Federal Council, which met in Sydney on August 28, has executive powers and its decisions are binding upon all the Branches. (For the decisions of these two bodies see THE MEDICAL JOURNAL OF AUSTRALIA, March 25, page 382, and September 23, page 420.)

The British Medical Agency Proprietary, Limited.

The Directors desire once more to bring the Agency under the notice of members and to ask for their support, more especially as a fund is being established to help members financially in purchasing practices. This can be done successfully only if the Agency receives the full support of members of the British Medical Association.

The British Medical Insurance Company of Victoria, Limited.

The British Medical Insurance Company of Victoria, Limited, was established in the year 1926 for the purpose of providing members of the Victorian Branch of the British Medical Association with insurance facilities at the lowest possible rate of premium, together with the best of policy conditions. Advantage was taken of the high "moral hazard"—using an insurance expression—particularly in the motor car comprehensive insurance section, by granting policy benefits wider than those obtainable elsewhere in the Commonwealth and at lower rates.

The enterprise of the company has been rewarded by the fact that very few members of the profession are not now insured in the "B.M.I." It may be not inappropriate here to mention that the underwriting (or acceptance of risks) is performed by the Secretary, who has had over thirty-seven years of general insurance experience.

The total amount of premiums received since inception to April 30, 1933, is £54,456; £24,517 has been expended in claims, whilst the net profit made (after allowance has been made for reinsurance) amounts to £4,990 14s. 1d., portion of which has been expended in the purchase of text books for the British Medical Association Library, and a sum of £250 has been allocated to the forthcoming meeting of the British Medical Association, to be held in Melbourne in the year 1935. In addition, the British Medical Association (Victorian Branch) has been assisted in other directions.

The British Medical Insurance Company of Victoria, Limited, transacts all classes of insurance business, whilst, as regards life assurance, an agency has been accepted for the well known Australian Mutual Provident Society. Therefore, the "B.M.I." Company will be pleased to hear from any member requiring additional life assurance.

The Melbourne Permanent Post-Graduate Committee.

The work of the committee has been carried on along the same lines during the past twelve months.

Lecturers, under arrangements made through the Committee, have visited a number of country centres, including Ballarat, Camperdown, Mooroopna, Warrnambool and Hamilton.

The annual refresher course was held this year in November and was attended by members not only from Victoria, but from Queensland, New South Wales and South Australia. The attendance this year was smaller than usual, the economic conditions probably contributing to this. It is possible that the approaching congress in Hobart may also have had an effect in this connexion.

During the currency of the refresher course Professor Wood Jones gave a series of three lectures on "Errors of Development of Interest in Medical and Surgical Practice", and Dr. A. C. D. Rivett, Chief Executive Officer, Council for Scientific and Industrial Research, two lectures on "Some Aspects of National Applied Science in Australia".

Arrangements have been made with Professor David Barr, of St. Louis, United States of America, to visit Melbourne and deliver a course of lectures of medical interest during July and August, 1934.

During the period under review the Council has been represented on the Committee by Dr. Major and Mr. Upjohn. Mr. Hurley, as convener of the Science Committee, has been *ex officio* a member of the Committee.

W. W. S. JOHNSTON,
Honorary Secretary.

Report of Sections.

Radiological.—Scientific papers have been read during the year. These have been less in number than formerly because of the falling off in financial members. The question of a scale of fees for work done by radiologists for lodges has again been considered. No specific scale has been drawn up, but attention has again been directed to the intermediate scale and to the provision made that when patients are unable to afford even this fee, all the radiologists are prepared to charge a special fee on the recommendation of the patient's medical adviser. The members of the Section deplore the abuse of public hospitals in that some lodge patients who should be able to pay this special fee are sent to the out-patient department of a general hospital for X ray examination.

DOUGLAS THOMAS,
Honorary Secretary.

Ophthalmological.—There are sixteen financial members. Five meetings of the Section have been held. A special meeting was held at the residence of Sir James Barrett, when Dr. Wilson, of the Giza Memorial Ophthalmic Laboratory, gave an address on "Trachoma". At three of the meetings cases of clinical interest were shown and discussed. The problem of reference of patients by practitioners to opticians was discussed. The definition and certification of blindness and invalid pensions for defective vision were dealt with. At present the question of a national ophthalmic scheme is under consideration.

W. M. BOX,
Honorary Secretary.

Anæsthesia.—There are fifteen members of this Section, and four quarterly meetings were held during the year, at which Dr. Ivan Maxwell read a paper, "Biochemistry in Relation to Anæsthetics"; Dr. John Shaw, "Methods of Anæsthesia in Ear and Throat Surgery"; Dr. F. A. Aird, "Anæsthetics for Dental Practice"; Dr. Geoffrey Kaye, "Remarks on Teaching of Anæsthesia".

ERIC N. GANDEVIA,
Honorary Secretary.

Neurology and Psychiatry.—One clinical meeting was held at the Receiving House, Royal Park, when Dr. Adey showed a series of cases illustrating senile states; and other members showed interesting cases. At the Medical Society Hall, Dr. N. A. Albiston read a paper on "Psychiatric Aspects of Child Guidance" to a well attended meeting.

JOHN F. WILLIAMS,
Honorary Secretary.

Gynæcological and Obstetrical.—There are forty-four members. Dr. A. Sherwin was elected President for 1933. There were three meetings, at which Dr. Felix Meyer, Professor Marshall Allan and Dr. W. G. Cuscaden and Dr. J. M. Buchanan contributed papers. Dr. R. J. Wright-Smith also gave a very interesting demonstration of pathological specimens with the clinical histories of the patients. A combined meeting was held with the Branch at the Medical Society Hall on May 3, when Dr. John Green contributed a paper.

EDWARD R. WHITE,
Honorary Secretary.

Ear, Nose and Throat.—Office-bearers to the above Section were as follows: President, Mr. Clive Eadie; Vice-President, Mr. Eric Gutteridge; Honorary Secretary, Mr. Norman Eadie; Honorary Treasurer, Mr. Tom Millar.

Many interesting cases were shown and discussed at the six meetings held in the Eye and Ear Hospital; the one combined meeting being held in the Medical Society Hall, at which Mr. Clive Eadie read a paper on "Sinus Infection". Owing to the satisfactory financial state of the Section the subscription was reduced. The question of fees for lodge patients came up for discussion and the views of the Section were subsequently submitted to the Organization Committee dealing with the question. Half existing minimum fees was the basis of the recommended scale.

NORMAN EADIE,
Honorary Secretary.

Urology.—Permission was granted for the formation of a Section of Urology.

Section for the Study of the History of Medicine.—This Section, which was formed in 1931, has been collecting information with regard to the early medical practitioners of Victoria. The President is Professor Wood Jones, and the Secretary, Dr. W. E. Donaldson. A lecture was delivered by Dr. G. T. Howard on November 3: "The Early Doctors of Port Phillip Settlement".

W. E. DONALDSON,
Honorary Secretary.

Reports of Subdivisions.

Metropolitan Subdivisions.

Melbourne.—No meeting was held during the year.

JOHN F. WILKINSON,
Honorary Secretary.

Western.—Only one meeting was held. Mr. Thomas King gave an address on "The Modern Treatment of Fractures".

M. J. COSTELLOE,
Honorary Secretary.

North-Eastern.—No meeting was held.

J. R. PESTELL,
Honorary Secretary.

Eastern.—Several meetings were held at the homes of members, the average attendance being 28. Members at one meeting met the local pharmacists to discuss the many problems of importance to both professions. At the annual meeting the following office-bearers were elected: President, Dr. Walter Summons; Honorary Secretary, Dr. Newport White. The average attendance at the meetings shows that the efforts of the Executive to provide interest for members were appreciated.

NEWPORT WHITE,
Honorary Secretary.

Southern.—A meeting of the Southern Subdivision was held on the evening of February 7, 1933, at the home of Dr. Gerald Weigall. There were nineteen members present and thirty pharmacists. The meeting was called to discuss "counter prescribing" and to create a happy relationship between medical practitioners and pharmacists.

Mr. Butchers, on behalf of the pharmacists, urged that more use be made of the Australian Pharmaceutical Formulary, and detailed the prices of some of the more

expensive and fashionable drugs. Most pharmacists agreed that counter prescribing was not in the best interests of the community or themselves, but they were at times practically forced into it.

A further meeting was held at Dr. Weigall's residence on November 4 to consider certain aspects of obstetrical practice in the district.

ALAN. R. TATE,
Honorary Secretary.

South-Eastern.—The annual meeting was held on March 29, and the following office-bearers were elected for the year: President, Dr. C. Maxwell; Vice-Presidents, Dr. W. McLaren and Dr. W. J. Denehy.

Following the usual custom of the Subdivision, the annual dinner was held at Carlyon's Hotel, St. Kilda, in June, and was well attended.

The competition for the Birrell Cup at golf was played at Kingston Heath, and the trophy was won by Dr. Henry Watson.

DOUGLAS C. PIGDON,
Honorary Secretary.

South-Central.—No meeting was held.

F. E. MCAREE,
Honorary Secretary.

Country Subdivisions.

Ballarat.—Office-bearers: President, Dr. N. A. Longden; Vice-President, Dr. H. Pearce; Treasurer, Dr. C. E. Richardson; Secretary, Dr. G. R. Davidson.

The above office-bearers were appointed at the annual meeting which was held on February 23. Dr. R. W. Chambers was the speaker, and his very practical lecture on "Leucorrhœa: Some Causes of Pelvic Pain" was greatly appreciated. A quarterly meeting was held on July 27. Before a large audience, Mr. Fay Maclure gave an extremely interesting lecture and demonstration. Points of surgical technique were demonstrated, and the manifold uses to which such substance as rubber and plaster could be put were clearly shown.

During the year the Ballarat Hospital Clinical Society has held monthly meetings. These meetings have been very well attended, men coming in regularly from outlying country towns.

G. RONALD DAVIDSON,
Honorary Secretary.

Geelong.—The President for the year was Dr. R. N. Scott Good. Many meetings were held concerning the industrial scheme of contributions to the Geelong Hospital, but nothing towards the improvement of the scheme has eventuated, although several pernicious practices have been checked. Dr. R. L. Fulton has been the representative on the Council, and has been renominated for the ensuing year. We owe a debt of gratitude to the following lecturers:

1. Dr. A. M. Wilson: "Difficulties in Obstetrics."
2. Dr. H. McLorinan: "Treatment of Diphtheria and Scarlet Fever Cases."
3. Dr. R. Wettenhall: "Diseases of the Skin."
4. Mr. Gordon Shaw: "Diagnosis and Treatment of Injuries of the Knee Joint."
5. Dr. M. D. Silberberg: "Diagnosis and Treatment of Hyperpiesis."
6. Dr. J. W. Grieve: "Common Children's Diseases."
7. Mr. W. D. Upjohn: "Gastric and Duodenal Ulcers."
8. Kodak Company: Illustration by lantern of "The Surgical Treatment of Several Diseases."

Mr. Victor Hurley will lecture in November and Mr. Alan Newton in December.

J. E. PIPER,
Honorary Secretary.

Bendigo.—During the year the annual meeting and four other meetings of the subdivision were held.

The office-bearers elected for 1933 were: President, Dr. Morris Jacobs; Vice-President, Dr. J. W. Cook; Honorary Secretary and Treasurer, Dr. A. R. Thorne.

Consideration was given to the contributory scheme established in Bendigo, and meetings between local representatives of the British Medical Association and the Committee of the Contributory Fund resulted in the drafting of a scheme acceptable and advantageous to members locally. Further discussion is taking place regarding medical benefits, and it is expected that in the near future payment toward medical fees will be made from a special fund to be established on a similar voluntary basis.

A. R. THORNE,
Honorary Secretary.

Gippsland.—During the past year subdivisional meetings were held at Sale, Korumburra and Warragul, in that order. At each meeting the usual procedure was followed of having a clinical afternoon and an evening lecture by visiting Melbourne men. Lectures were given on the following subjects: "Diabetes", by Dr. Ewen Downie; "Local Anæsthesia", by Dr. Leo Doyle.

CONRAD M. LEY,
Honorary Secretary.

Goulburn Valley.—At the annual meeting the following office-bearers were elected: President, Dr. J. A. Kennedy; Vice-President, Dr. F. W. Grutzner; Secretary, Dr. Annie L. Bennett.

Through the courtesy of the Melbourne Permanent Post-Graduate Committee a post-graduate meeting was held, at which there was a good attendance to hear Mr. Victor Hurley lecture on "Management of Head Injuries", and Dr. H. Douglas Stephens on "Limp in Infancy and Childhood." A Branch meeting was also held at Mooroopna on May 20, when papers were given by Dr. Leslie Hurley and Dr. S. F. Sutherland.

ANNIE L. BENNETT,
Honorary Secretary.

North-Western.—No meeting has been held this year.

H. W. CHARLTON,
Honorary Secretary.

North-Eastern.—Dr. W. H. Godby, the Secretary, resigned in September prior to leaving for Perth. Community wards have been opened in Association with the Wangaratta Base Hospital. On October 21 a Branch meeting was held at Wangaratta, when fifteen medical practitioners came from Melbourne, and there were a number of members from the surrounding districts. During the afternoon clinical cases of interest were discussed, and in the evening, papers by Dr. G. V. Davies on "Vaccine Therapy in the Treatment of Pneumonia", and by Mr. Thos. King on "Treatment of Fractures of the Neck of the Femur", were greatly appreciated by all present.

E. W. HANDS,
Acting Honorary Secretary.

South-Western—Four meetings have been held since last annual report, including a meeting of the Branch which was held at Warrnambool on Saturday, July 22. This was very successful, over forty members travelling from Melbourne and twenty-two members of the subdivision being present. Cases were shown and papers read by Dr. S. C. Fitzpatrick on "Tubal Inflation" and Mr. Fay Maclure on "Rest and Movement in Joint Conditions".

The subdivisional meetings were held at Camperdown, Hamilton and Mortlake. At each a general meeting and committee meeting was held, and members dined together, the attendance being from twelve to sixteen. Lectures were given at Camperdown by Dr. G. L. Lillies, "Anæsthesia and Premedication", and at Mortlake by Dr. R. Ellery, "Early Signs of Mental Disease." At Hamilton a good list of clinical cases was shown.

The special committee meeting was held at Mortlake in May to arrange for the Branch meeting on July 22.

The subdivision sustained a great loss in the death of Dr. Oliphant, of Hamilton, during the year.

Dr. Desailly, the President, and other office-bearers hold office for another year.

J. MORLET,
Honorary Secretary.

The annual report is submitted on behalf of the Council.

W. D. UPJOHN,
President.

J. P. MAJOR,
Honorary Secretary.

PAYING BEDS IN PUBLIC HOSPITALS.

The resolutions which had been passed by the Council were adopted on the motion of Dr. B. T. Zwar, seconded by Dr. Victor Hurley, and became the policy of the Branch.

BRANCH CONVOCATION.

Dr. H. C. Colville pointed out that after long correspondence with the Home Association, permission had been obtained to constitute a Branch convocation, which should have general control and direction of the policy and affairs of the Branch. On the motion of Dr. Colville, seconded by Dr. J. Newman Morris, alterations made in Rules 12 and 18 of the Branch were adopted.

NOMINATION OF PRESIDENT-ELECT OF THE BRITISH MEDICAL ASSOCIATION.

It was pointed out that in view of the holding of the annual meeting of the Association in Melbourne in 1935, it was necessary for the Branch to submit to the Central Council a nomination for the position of President.

Dr. J. Newman Morris said that this was the first occasion on which an overseas Branch would have the privilege of nominating a President for the whole Association. The nomination would be submitted to the Central Council next July. He nominated Sir Richard Stawell as a member of high standing who had done much for the Association. Sir James Barrett, who seconded the motion, said that no more fitting representative of the profession could be found in Australia to fill such an important position. The motion was carried unanimously.

Sir Richard Stawell thanked the members for the high honour they had conferred upon him.

Dr. W. G. D. Upjohn, the President, then read a letter received that day from a correspondent who for the time being desired to remain anonymous. This correspondent had placed at the disposal of the Branch the sum of one thousand pounds, to be used in providing an annual oration to commemorate the life and work of Sir Richard Stawell. The Council had accepted this gift, and had appointed Dr. L. S. Latham, Dr. J. Newman Morris and Dr. Alfred White trustees of the fund. Dr. Upjohn said that the oration would be made a feature of the centenary celebrations.

UNVEILING OF A PORTRAIT OF THE LATE ALFRED VICTOR MILLARD ANDERSON.

Dr. R. H. Fetherston unveiled a portrait of the late Dr. Alfred Victor Millard Anderson, which had been provided by five of his friends. Dr. L. S. Latham paid a tribute to the life and work of Dr. Anderson, and Dr. Upjohn accepted the portrait on behalf of the Branch.

INDUCTION OF PRESIDENT.

Dr. W. G. D. Upjohn then introduced Dr. Gerald Weigall as President of the Branch for 1934.

RETIRING PRESIDENT'S ADDRESS.

Dr. W. G. D. Upjohn then delivered his address (see page 111).

VOTES OF THANKS.

A vote of thanks to Dr. W. G. D. Upjohn for the services that he had rendered to the Branch during his year of office, was moved by Sir Richard Stawell, seconded by Dr. Murray Morton, and carried by acclamation.

A vote of thanks to Dr. Allen Robertson, who was retiring from the Council after seventeen years' service, was also carried.

NOMINATIONS AND ELECTIONS.

THE undermentioned has been nominated for election as a member of the New South Wales Branch of the British Medical Association:

Morrow, Arthur William, M.B., B.S., 1927 (Univ. Sydney), Sloane Street, Sydney.

The undermentioned has been elected a member of the Tasmanian Branch of the British Medical Association:

Le Souef, Albert Wadeson, M.B., B.S., 1916 (Univ. Melbourne), 71, Federal Street, North Hobart.

Correspondence.

THE PROBLEM OF GASTRIC CARCINOMA.

SIR: Mr. Rutherford Darling has acquainted me with the recent controversy on occult blood testing in your journal, in which an article of mine has been freely quoted and criticised. He kindly furnished me with cuttings and suggested that I might write and attempt to "clarify the position". I fear that this latter may be beyond me, but beg the courtesy of your columns to reply to certain criticisms, to indicate sources of possible confusion, and to state how I think the test used may best be applied in practice.

"Pathologist's" letter of October 7 is the most important criticism. The writer gives extracts from my article which are not exact quotations, and which in two vital instances are inaccurate. I have my article in front of me as I write.

(1) He says that I stated that two ounces of ox blood were "just sufficient" to give a definite reaction with Gregersen's test. What I actually said was: ". . . the cooked ox blood, which was taken in amount sufficient to give a definite reaction if uncooked (two ounces), also gave no reaction in the stools." The word "just" has been introduced, and gives quite a different meaning from the original. Two ounces of ox blood are much more than sufficient to give a strong positive reaction in the stools, but my intention was to demonstrate the marked effect of cooking, and the subsequent processes of digestion and absorption, upon the appearance or non-appearance of ingested hæmoglobin in the fæces in significant amount.

(2) He also stated: "Ogilvie himself quotes four cases where a positive test was due solely to diet (compare above)." The only cases of mine referred to by the writer in which diet was stated as having any effect (in point of fact they were the only cases mentioned in my paper), were five cases in which a faint coloration appeared after thirty seconds. As, however, I state quite definitely elsewhere in the article that "a blue-green colour developing after thirty seconds has been labelled 'faint 1+' and regarded with suspicion", it is inaccurate to represent me as reporting "four cases where a positive test was solely due to diet".

Criticism of my paper in this country has been confined to the fear that bleeding may be overlooked, but "Pathologist" argues both ways. Surely, if the test is insufficiently delicate to detect two ounces of ox blood after it is taken into the stomach, it can hardly be delicate enough to detect smaller amounts of cooked hæmoglobin, especially when two ounces of cooked ox blood failed to yield a positive result. One at least of these arguments must be wrong, and neither can be supported from my results.

Dr. Craig's letter of September 9 is open to serious objection. He states that the investigations he reports showed that "Gregergon's test was more delicate than the

benzidine". (I assume he refers to the "saturated" benzidine test, for both are really benzidine tests.) As, however, this "finding" is a chemical impossibility, grave doubt is thrown upon the accuracy of technique and of observation of all the experiments quoted.

It may perhaps be helpful if I explain as briefly as possible how I think the test is best applied. I always test consecutive specimens of fæces over a period of several weeks, and the results are recorded on a "gastric chart", one of which I enclose. The specimens are collected by the patient, and are tested in batches once or twice a week as convenient (preferably twice weekly). This routine is necessary, as the fæces of cases of cancer of the stomach are not infrequently negative by Gregersen's test because the growth at the time is not bleeding to a significant extent. For example, a scirrhous cancer of the pylorus may not bleed at all for several days, and if only a few specimens are tested, the times of bleeding may be missed. I have not found a gastric cancer which has failed to give frequent, though intermittent, positive results, with the exception of the "leather-bottle" stomach (which is readily diagnosed by radiology, and is very rare). In fact, I personally regard this intermittent persistency of bleeding as characteristic of stomach and bowel cancer. An ulcer readily, and usually rapidly, stops bleeding on treatment. It is, of course, difficult to prove that it is absolutely impossible to overlook cancer by occult blood testing, whatever method is used; no one is absolved from using clinical judgement by any test. But with the above routine, using Gregersen's test, I believe that a missed case is a distinct rarity.

My own view about dietetic precautions in these tests is that too much is still made of them. Your readers may not agree; but their remedy is plain. They must use special diets. I must mention two possible sources of confusion of dietetic origin, though they are of slight practical importance. When very large amounts of greens are taken, which is rare in gastric disorders, a pseudo-positive result may be obtained. This does not cause difficulty after a little experience. A dirty green colour appears (usually late) and very slowly deepens. Now blood gives a blue or blue-green colour which appears quite suddenly. If real doubt exists, boiling of the stool will remove it, as the result is due to certain enzymes. Again, tests are not reliable during an attack of diarrhœa, as partially digested food may reach the lower bowel; it is better to wait. Diarrhœa, however, is not common in gastric or bowel cancers above the rectum, or in cases of ulcer or dyspepsia.

The technique of the test, though not complicated, requires reasonable care and absolute cleanliness. A stock solution of 50% acetic acid should not be used; it is unreliable. A five cubic centimetre graduated glass cylinder, with a glass stopper to facilitate shaking, enables the solution to be made up fresh with no loss of time, and if washed out with distilled water immediately after use is an insurance against contamination. The cylinder, the glass rod and the glass slides should be used for the one purpose alone, and kept clean. If the solution goes green on standing, it is contaminated and is useless, and it is well to clean the apparatus with acid for twenty-four hours before using again. The solution should therefore be left for at least a minute, to exclude contamination, before it is used.

If the stool is soft, a positive result must be checked by proctoscopy to exclude hæmorrhoids, if this has not been done.

The next question is: What of the other tests of similar nature, which are preferred by many eminent people, notably Hurst and Harrison? The first point is that they are hospital tests, and cannot be reliably used by the busy practitioner. The preparation is formidable, and includes complete exclusion of hæmoglobin from the diet for at least three days, and the persistent rinsing of the mouth during this time; the teeth must be cautiously brushed, if at all. The persistent testing of specimens for any length of time in general practice under these conditions is a counsel of perfection, and there is the constant doubt as to the reliability of the preparation in the absence of adequate supervision. The tests, too, are too time-consuming; each specimen must be separately tested with freshly made solution, and Ryffell's new guaiac test, for example, takes at least ten minutes to perform. These are great disadvantages, and the evidence that the results are in any way better is far from convincing. The difficulty of excluding mouth bleeding, which most gastric patients have, is great, and the additional fallacy due to the risk of checking bleeding by dieting is introduced. Both Harrison and Hurst admit the difficulty of the preparation, even in hospital, and an eminent physician, in a personal communication, said he did not think it possible in general practice. I agree, and as I believe that Mr. Darling is absolutely right when he says that the early diagnosis, on which so much depends, can be made only by the general practitioner, I consider that this is a very serious defect of all tests other than Gregersen's test.

Gregersen's test can help the doctor very materially in sorting his dyspeptic cases, often so difficult a matter; as it is positive at a stage when clinical examination may be equivocal, and radiology is often negative. In Australia one imagines that this consideration has a peculiar cogency. If the practitioner sends his organic dyspepsias at an early stage to the hospital or the specialist, he has done his part. The physician, the surgeon and the pathologist can then act as seems best to them. I would urge practitioners to make an adequate trial of the method; the proof of the pudding is in the eating.

I thank you, sir, for allowing me space in your columns, and apologize for the unavoidable length of this letter.

Yours, etc.,

A. G. OGILVIE.

17, Brandling Park,
Newcastle-on-Tyne,
November 15, 1933.

Proceedings of the Australian Medical Boards.

TASMANIA.

THE undermentioned has been registered, pursuant to the provisions of the *Medical Act*, 1918, of Tasmania, as a duly qualified medical practitioner:

Freemantle, Norman Franklyn, M.B., B.S., 1925 (Univ. Melbourne), Public Hospital, Launceston.

NEW SOUTH WALES.

The undermentioned have been registered, pursuant to the provisions of the *Medical Act*, 1912 and 1915, of New South Wales as duly qualified medical practitioners:

Grant, Wemyss Gordon, M.B., B.S., 1924 (Univ. Melbourne), Orange.

Lloyd-Williams, Eric Hird Victor, M.B., B.S., 1931 (Univ. Sydney).

Harding, Frances Keller, L.R.C.P., 1930 (Edinburgh); L.R.C.S., 1930 (Edinburgh); L.R.F.P.S., 1930 (Glasgow); The Sanitarium, Wahroonga.

Harding, Warren Gamaliel, L.R.C.P., 1930 (Edinburgh); L.R.C.S., 1930 (Edinburgh); L.R.F.P.S., 1930 (Glasgow); F.R.C.S., 1933 (Edinburgh); The Sanitarium, Wahroonga.

Yoffa, David Leslie, M.B. *et* Ch.B., 1918 (Univ. Melbourne), Broken Hill Hospital.

Books Received.

POCKET MONOGRAPHS ON PRACTICAL MEDICINE: AN EPITOME OF OBSTETRICAL DIAGNOSIS AND TREATMENT IN GENERAL PRACTICE, by B. Solomons, M.D., F.R.C.P.I., F.C.O.G.; 1933. London: John Bale, Sons and Danielsson, Limited. Foolscap 8vo., pp. 138. Price: 2s. 6d. net.

A SHORT HISTORY OF OPHTHALMOLOGY, by A. Sorsby, M.D., F.R.C.S., with foreword by R. R. James, F.R.C.S.; 1933. London: John Bale, Sons and Danielsson, Limited. Crown 8vo., pp. 109, with illustrations. Price: 3s. 6d. net.

THE POCKET ANATOMY, by C. H. Fagge, M.B., M.S., F.R.C.S.; Ninth Edition; 1933. London: Baillière, Tindall and Cox. Foolscap 8vo., pp. 339. Price: 5s. net.

METABOLIC DISEASES AND THEIR TREATMENT, by E. Grafe, translated by M. G. Boise; 1933. Philadelphia: Lea and Febiger. Royal 8vo., pp. 563, with illustrations.

THE HISTORY OF MALARIA IN THE ROMAN CAMPAGNA FROM ANCIENT TIMES, by A. Celli, edited and enlarged by A. Celli-Fraentzel, with preface by A. Castellani, K.C.M.G., D.S.C., M.D., F.R.C.P.; 1933. London: John Bale, Sons and Danielsson, Limited. Demy 8vo., pp. 232. Price: 10s. 6d. net.

CLINICAL CONTRACEPTION, by G. M. Cox, M.B., B.S., with introduction by Lord Horder of Ashford, K.C.V.O., M.D., F.R.C.P.; 1933. London: William Heinemann (Medical Books) Limited. Demy 8vo., pp. 183, with illustrations. Price: 7s. 6d. net.

THE AUSTRALIAN AND NEW ZEALAND PHARMACEUTICAL FORMULARY, Sixth Edition, 1934. Sydney: W. C. Penfold and Company, Limited. Foolscap 8vo., pp. 192. Price: 4s. 6d. net.

MONOGRAPHS OF THE BAKER INSTITUTE OF MEDICAL RESEARCH: Number 2: THE SPREAD OF TUMOURS IN THE HUMAN BODY, by R. A. Willis, M.D., B.S., D.Sc.; 1934. London: J. and A. Churchill. Demy 8vo., pp. 550, with illustrations. Price: 25s. net.

Medical Appointments.

Dr. P. S. Messent (B.M.A.) has been appointed Honorary Surgeon at the Adelaide Hospital, South Australia.

* * *

Dr. G. H. Burnell (B.M.A.) has been appointed Honorary Assistant Surgeon at the Adelaide Hospital, South Australia.

* * *

Dr. M. T. Cockburn (B.M.A.) has been appointed Honorary Pathologist to the Mareeba Babies' Hospital, South Australia.

* * *

Dr. I. G. M. Halley (B.M.A.) and Dr. J. S. Proctor (B.M.A.) have been appointed Official Visitors to the Mental Hospital at Parkside, South Australia, under the provisions of the *Mental Defectives Act*, 1913.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants *locum tenentes* sought, etc., see "Advertiser", pages xvi, xvii

LAUNCESTON PUBLIC HOSPITAL, LAUNCESTON, TASMANIA: Resident Medical Officers.

MATER MISERICORDIÆ PUBLIC HOSPITAL, BRISBANE, QUEENSLAND: Honorary Assistant Relieving Physician.

PALMERSTON NORTH HOSPITAL BOARD, PALMERSTON, NEW ZEALAND: Radiologist.

QUEEN VICTORIA MEMORIAL HOSPITAL FOR WOMEN AND CHILDREN, MELBOURNE, VICTORIA: Resident Medical Officers (female).

ROYAL PRINCE ALFRED HOSPITAL, SYDNEY, NEW SOUTH WALES: Honorary Officers.

SAINT VINCENT'S HOSPITAL MELBOURNE, VICTORIA: Honorary Officers.

SWAN HILL DISTRICT HOSPITAL, SWAN HILL, VICTORIA: Resident Medical Officer.

THE RACHEL FORSTER HOSPITAL FOR WOMEN AND CHILDREN, SYDNEY, NEW SOUTH WALES: Medical Superintendent; Part-Time Medical Registrar.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 135, Macquarie Street, Sydney.	Australian Natives' Association. Ashfield and District United Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham United Friendly Societies' Dispensary. Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney. North Sydney Friendly Societies' Dispensary Limited. People's Prudential Assurance Company Limited. Phœnix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association, Proprietary, Limited. Mutual National Provident Club. National Provident Association. Hospital or other appointments outside Victoria.
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.	Brisbane Associated Friendly Societies' Medical Institute. Chillagoe Hospital. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL are advised, in their own interests, to submit a copy of their agreement to the Council before signing. Lower Burdekin District Hospital, Ayr.
SOUTH AUSTRALIAN: Secretary, 207, North Terrace, Adelaide.	Combined Friendly Societies, Clarendon and Kangarilla districts. All Lodge Appointments in South Australia. All Contract Practice Appointments in South Australia.
WESTERN AUSTRALIAN: Honorary Secretary, 205, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (Wellington Division): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington, New Zealand.

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All communications should be addressed to "The Editor", THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-3.)

SUBSCRIPTION RATES.—Medical students and others not receiving THE MEDICAL JOURNAL OF AUSTRALIA in virtue of membership of the Branches of the British Medical Association in the Commonwealth can become subscribers to the journal by applying to the Manager or through the usual agents and booksellers. Subscriptions can commence at the beginning of any quarter and are renewable on December 31. The rates are £2 for Australia and £2 5s. abroad *per annum* payable in advance.